c1

Student: _____

1. Evaluate the following accurate to the cent: 20 - 4 × 2 - 8

2. Evaluate the following accurate to the cent: 18 ¸ 3 + 6 × 2

3. Evaluate the following accurate to the cent: (20 - 4) × 2 - 8

4. Evaluate the following: 18 ¸ (3 + 6) × 2

5. Evaluate the following: 20 - (4 × 2 - 8)

6. Evaluate the following: (18 ¸ 3 + 6) × 2

7. Evaluate the following: $54 - 36 \div 4 + 2^2$

8. Evaluate the following: $(5 + 3)^2 - 3^2 \div 9 + 3$

9. Evaluate the following: $(54 - 36) \div (4 + 2)^2$

10. Evaluate the following: $5 + (3^2 - 3)^2 \div (9 + 3)$

11. Evaluate the following: $\dfrac{8^2 - 4^2}{(4-2)^3}$

12. Evaluate the following: $\dfrac{(8-4)^2}{4-2^3}$

13. Evaluate the following: $3(6 + 4)^2 - 5(17 - 20)^2$

14. Evaluate the following: $(4 \times 3 - 2)^2 \div (4 - 3 \times 2^2)$

15. Evaluate the following: $[(20 + 8 \times 5) - 7 \times (-3)] \div 9$

16. Evaluate the following: $5[19 + (5^2 - 16)^2]^2$

17. Evaluate the following accurate to the cent: $\$100\left(1+0.06\times\frac{45}{365}\right)$

18. Evaluate the following accurate to the cent: $\frac{\$200}{1+0.09\times\frac{4}{12}}$

19. Evaluate the following accurate to the cent: $\dfrac{\$500}{(1+0.05)^2}$

20. Evaluate the following accurate to the cent: $\$1000(1+0.02)^3$

21. Evaluate the following accurate to the cent: $\$100\left(\dfrac{(1+0.04)^2-1}{0.04}\right)$

22. Evaluate the following accurate to the cent:

$$\$300\left[\frac{1-\frac{1}{(1+0.03)^2}}{0.03}\right]$$

23. If you want four-figure accuracy in your answer, what minimum number of figures must be retained in the values used in the calculations? A) 4 B) 5 C) 6

24. For a final result of approximately $7000 to be accurate to the cent, what minimum number of figures must be maintained in the values used in the calculations? A) 6 B) 7 C) 8

25. If a final result of the order of five million dollars is to be accurate to the nearest dollar, what minimum number of figures must be maintained in the calculations? A) 6 B) 7 C) 8

26. If an interest rate (which could be greater than 10%) is to be calculated to the nearest 0.01%, what minimum number of digits must be retained in the numbers used to calculate the interest rate? A) 3 B) 4 C) 5

27. The following fraction has a terminating decimal equivalent form. Express its decimal and percent equivalent forms to five-figure accuracy: $\frac{7}{8}$

28. The following fraction has a terminating decimal equivalent form. Express its decimal and percent equivalent forms to five-figure accuracy: $\frac{65}{104}$

29. The following fraction has a terminating decimal equivalent form. Express its decimal and percent equivalent forms to five-figure accuracy: $\frac{47}{20}$

30. The following fraction has a terminating decimal equivalent form. Express its decimal and percent equivalent forms to five-figure accuracy: $-\frac{9}{16}$

31. The following fraction has a terminating decimal equivalent form. Express its decimal and percent equivalent forms to five-figure accuracy: $\frac{-35}{25}$

32. The following mixed number has a terminating decimal equivalent form. Express its decimal and percent equivalent forms to five-figure accuracy: $1\frac{7}{25}$

33. The following fraction has a terminating decimal equivalent form. Express its decimal and percent equivalent forms to five-figure accuracy: $\frac{25}{1000}$

34. The following fraction has a terminating decimal equivalent form. Express its decimal and percent equivalent forms to five-figure accuracy: $\frac{1000}{25}$

35. The following mixed number has a terminating decimal equivalent form. Express its decimal and percent equivalent forms to five-figure accuracy: $2\frac{2}{100}$

36. The following mixed number has a terminating decimal equivalent form. Express its decimal and percent equivalent forms to five-figure accuracy: $-1\frac{11}{32}$

37. The following fraction has a terminating decimal equivalent form. Express its decimal and percent equivalent forms to five-figure accuracy: $\frac{37.5}{50}$

38. The following fraction has a terminating decimal equivalent form. Express its decimal and percent equivalent forms to five-figure accuracy: $\frac{22.5}{-12}$

39. The following fraction has a repeating decimal equivalent form. Express the decimal and percent equivalent form in the repeating decimal notation. Show just the minimum number of decimal places needed to display the repeating digit or group of digits. $\frac{5}{6}$

40. The following fraction has a repeating decimal equivalent form. Express the decimal and percent equivalent form in the repeating decimal notation. Show just the minimum number of decimal places needed to display the repeating digit or group of digits. $-\frac{8}{3}$

41. The following mixed number has a repeating decimal equivalent form. Express the decimal and percent equivalent form in the repeating decimal notation. Show just the minimum number of decimal places needed to display the repeating digit or group of digits. $7\frac{7}{9}$

42. The following mixed number has a repeating decimal equivalent form. Express the decimal and percent equivalent form in the repeating decimal notation. Show just the minimum number of decimal places needed to display the repeating digit or group of digits. $1\frac{1}{11}$

43. The following fraction has a repeating decimal equivalent form. Express the decimal and percent equivalent form in the repeating decimal notation. Show just the minimum number of decimal places needed to display the repeating digit or group of digits. $\frac{10}{9}$

44. The following fraction has a repeating decimal equivalent form. Express the decimal and percent equivalent form in the repeating decimal notation. Show just the minimum number of decimal places needed to display the repeating digit or group of digits. $\frac{-4}{900}$

45. The following fraction has a repeating decimal equivalent form. Express the decimal and percent equivalent form in the repeating decimal notation. Show just the minimum number of decimal places needed to display the repeating digit or group of digits. $-\frac{7}{270}$

46. The following fraction has a repeating decimal equivalent form. Express the decimal and percent equivalent form in the repeating decimal notation. Show just the minimum number of decimal places needed to display the repeating digit or group of digits. $\frac{37}{27}$

47. Round the following to four-figure accuracy: 11.3845

48. Round the following to four-figure accuracy: 9.6455

49. Round the following to four-figure accuracy: 0.5545454

50. Round the following to four-figure accuracy: 1000.49

51. Round the following to four-figure accuracy: 1.0023456

52. Round the following to four-figure accuracy: 0.030405

53. Round the following to four-figure accuracy: 40.09515

54. Round the following to four-figure accuracy: 0.0090909

55. Convert the following fraction to its decimal equivalent and percent equivalent values, rounded to five figures: $\frac{1}{6}$

56. Convert the following fraction to its decimal equivalent and percent equivalent values, rounded to five figures: $\frac{7}{6}$

57. Convert the following fraction to its decimal equivalent and percent equivalent values, rounded to five figures: $\frac{1}{60}$

58. Convert the following mixed number to its decimal equivalent and percent equivalent values, rounded to five figures: $2\frac{5}{9}$

59. Convert the following fraction to its decimal equivalent and percent equivalent values, rounded to five figures: $\frac{250}{365}$

60. Convert the following fraction to its decimal equivalent and percent equivalent values, rounded to five figures: $\frac{15}{365}$

61. Convert the following fraction to its decimal equivalent and percent equivalent values, rounded to five figures: $\frac{0.11}{12}$

62. Convert the following fraction to its decimal equivalent and percent equivalent values, rounded to five figures: $\frac{0.095}{12}$

63. Evaluate the following accurate to the nearest cent:

$$\$92\left(1+0.095\times\frac{112}{365}\right)$$

64. Evaluate the following accurate to the nearest cent:

$$\$100\left(1+0.11\times\frac{5}{12}\right)$$

65. Evaluate the following accurate to the nearest cent:

$$\$454.76\left(1-0.105\times\frac{11}{12}\right)$$

66. Evaluate the following accurate to the nearest cent: $\frac{\$790.84}{1+0.13\times\frac{311}{365}}$

67. Evaluate the following accurate to the nearest cent: $\frac{\$3490}{1+0.125\times\frac{91}{365}}$

68. Evaluate the following accurate to the nearest cent: $\frac{\$10,000}{1-0.10\times\frac{182}{365}}$

69. $\$650\left(1+\frac{0.105}{2}\right)^{2}$

Evaluate the following accurate to the nearest cent:

70. $\$950.75\left(1-\frac{0.095}{4}\right)^{2}$

Evaluate the following accurate to the nearest cent:

71. $\frac{\$15{,}400}{\left(1+\frac{0.13}{12}\right)^{6}}$

Evaluate the following accurate to the nearest cent:

72. Evaluate the following accurate to the nearest cent: $\frac{\$550}{\left(1+\frac{0.115}{2}\right)^4}$

73. What is 33 $\frac{1}{3}\%$ of $1527?

74. What is 2.75% of $2.75?

75. What amount is 250% of $25?

76. 0.025% of $200 is what amount?

77. How much is $\frac{1}{2}\%$ of $30?

78. Bethany and Irwin estimate their total cost for a vacation in Cuba to be $14,775. If 53% of this cost is for flights and accommodations and 42% is for meals, how much money will they be able to spend on entertainment?

79. In the month of July, a convenience store had total sales of $102,300 from its gas pumps and other in-store products. If HST is 13% of sales, how much HST was collected on the in-store products if these sales represent 36% of total sales?

80. In a basketball game, the Langara College Falcons scored $54.\overline{54}\%$ of 33 shots from the 2-point zone, $46.\overline{6}\%$ of 15 attempts from the 3-point distance, and 79.3% of 29 free throws (1 point each). How many points did the Falcons score?

81. Evaluate the following accurate to the nearest cent:

$$\frac{\$6600\left(1+0.085\times\frac{153}{365}\right)}{1+0.125\times\frac{82}{365}}$$

82. Evaluate the following accurate to the nearest cent:

$$\frac{\$780\left(1+\frac{0.0825}{2}\right)^{5}}{\left(1+\frac{0.10}{12}\right)^{8}}$$

83. $\$1000\left[\frac{\left(1+\frac{0.09}{12}\right)^{7}-1}{\frac{0.09}{12}}\right]$

Evaluate the following accurate to the nearest cent:

84. $\frac{\$350}{\frac{0.0975}{12}}\left[1-\frac{1}{\left(1+\frac{0.0975}{12}\right)^{5}}\right]$

Evaluate the following accurate to the nearest cent:

85. $$\frac{\$9500}{\frac{\left(1+\frac{0.075}{4}\right)^{5}-1}{\frac{0.075}{4}}}$$

Evaluate the following accurate to the nearest cent:

86. Evaluate the following accurate to the nearest cent:

$$\$45\frac{\left[1-\frac{1}{\left(1+\frac{0.0837}{2}\right)^{4}}\right]}{\frac{0.0837}{2}}+\frac{\$1000}{\left(1+\frac{0.0837}{2}\right)^{4}}$$

87. The Calgary Flames hockey team announced that its season's ticket sales represent 67.50% of the Scotiabank Saddledome's seating capacity of 19,289 seats. Rounded to the nearest 100, how many seats were not sold to season's ticket holders?

88. The Royal Canadian Mint sells one troy ounce (31.16 grams) platinum collector coins of 99.95% purity. How many milligrams of impurities are in a single coin?

89. Stan is a real estate salesperson. He receives 60% of the 4.8% commission that the real estate agency charges on sales. If his sales for the past year were $5,225,000, what was the dollar value of his commission?

90. The maximum amount an individual can contribute to her Registered Retirement Savings Plan (RRSP) for a year is set from time to time by the Regulations of the Income Tax Act. For the year 2013, the maximum contribution was the lesser of $23,820 or 18% of the individual's "earned income" during 2012. What was the maximum RRSP amount that could be contributed in 2013 based on an income of $128,500 in 2012?

91. Aletta's annual salary of $58,800 is paid weekly. She is paid at time and a half for any overtime beyond her regular workweek of 35 hours. What is her gross pay for a week in which she works 39 hours?

92. Lucille receives an annual salary of $37,500 based on a 37.5-hour workweek. What are her gross earnings for a two-week pay period in which she works 9 hours of overtime at 1½ times her regular rate of pay?

93. Hasad is paid an annual salary of $54,600 based on a 40-hour workweek. What is his gross pay for a biweekly pay period if he works 43 hours in the first week and 46.5 hours in the second week? Overtime is paid at time and a half. Assume there are exactly 52 weeks in a year.

94. Ross's compensation is to be changed from an hourly rate of $31.50 for a 40-hour week to a salary paid semimonthly. What should he be paid semimonthly in order for his annual earnings to remain the same?

95. Allison's regular hourly rate of pay is $17.70. She is paid time and a half for all work on weekends and for any time over 7.5 hours on weekdays. Calculate her gross earnings for a week in which she works 4.5, 0, 7.5, 8.5, 6, 6, and 9 hours on Saturday to Friday, respectively.

96. Sam is paid $34.50 per hour as a power plant engineer. He is paid 1½ times the regular rate for all time exceeding 8 hours in a day or 40 hours in a week. Statutory holidays worked are paid at double time (in addition to holiday pay). What were his gross earnings for a week in which he clocked 8, 9.5, 8, 8, 10, 0, and 8 hours on Saturday to Friday, respectively, where Monday was a statutory holiday?

97. Mary sews for a clothing manufacturer. She is paid $7.50 per hour plus a piece rate that depends on the type of garment in production. The current production run is men's shirts, for which she is paid $3.00 for each unit exceeding her quota of 20 shirts in an 8-hour shift. What will be her total pay for a regular workweek in which her output on successive days was 24, 26, 27, 28, and 30 shirts?

98. Herb packs fish in 500-g cans on a processing line. He is paid $8.25 per hour plus $0.18 per kilogram for production in excess of 500 kg in a 7.5-hour shift. How much will he earn per day if he packs 250 cans per hour?

99. Svetlana is an independent insurance broker placing various clients with any of several insurance companies. On homeowner insurance policies, each month she receives:
    $20 for each renewal of an existing policy;
    $35 for each policy placed with a new client; and
    5.5% of the annual premiums on all policies (new and renewed) written in the month.
    In October, she placed 37 new-client policies representing $14,375 in annual premiums and 126 policy renewals representing $47,880 in annual premiums. What amount did Svetlana earn in October?

100. Hillary sells cosmetics from her part-time home-based business. She receives a straight commission of 21% from her supplier. At the year-end, she also receives a 7% bonus on sales exceeding her annual quota of $100,000. What will her gross annual earnings be for a year in which her average monthly sales are $11,000?

101. Manfred is considering job offers of the same type of sales position from two retailers with similar product lines:

Supreme Audio & Video is offering a base salary of $2000 per month plus a 4% commission rate on sales;
Buy-Right Electronics will pay a base salary of $1500 per month plus commission rates of 3% on the first $25,000 of sales and 6% on additional sales in a month.
Based on past experience in similar sales positions, Manfred is confident he can attain average monthly sales of $55,000. At this level of sales, what would be his average gross earnings per month from each retailer?

102. A shoe salesman is paid the greater of $600 per week or 11% of sales. a) What will be his earnings for a week in which sales are $5636? b) At what volume of sales per week will he start to earn more from the commission based compensation?

103. Tom sells mutual funds on a graduated commission structure. He receives 3.3% on the first $50,000 of sales in a month, 4.4% on the next $50,000, and 5.5% on all further sales. What are his gross earnings for a month in which he sells $140,000 worth of mutual funds?

104. Sharon is a manufacturer's representative selling office furniture directly to businesses. She receives a monthly salary of $2000 plus a 2.2% commission on sales exceeding her quota of $150,000 per month.

a) What are her earnings for a month in which she has $227,000 in sales?

b) If her average monthly sales are $235,000, what straight commission rate would generate the same average monthly earnings as her current basis of remuneration?

105. Julio is paid on a graduated commission scale of 5% on the first $20,000 of sales in a month, 7.5% on the next $20,000, and 10% on all additional sales.

a) What will he be paid for a month in which his sales are $54,880?

b) What single commission rate on all sales would result in the same earnings for the month?

106. Karen works in a retail computer store. She receives a weekly base salary of $300 plus a commission of 3% of sales exceeding her quota of $20,000 per week. What were her sales for a week in which she earned $630.38?

107. Jason's gross pay for August was $3296.97 on sales totalling $151,342. If his base salary is $1500 per month, what is his rate of commission on sales exceeding his monthly quota of $100,000?

108. Daniella's gross monthly earnings are based on commission rates of 4% of the first $40,000 of sales, 5% of the next $50,000, and 6% of all additional sales for the month. What was her sales total for a month in which she was paid $5350?

109. Trevor earns a base monthly salary of $2000 plus a commission of 3% on sales exceeding his monthly quota of $25,000. He receives a further 3% bonus on sales in excess of $50,000. What must his sales be in order to gross $4000 per month?

110. In what circumstance should you calculate a weighted average instead of a simple average?

111. In what circumstances will the weighted average be equal to the simple average?

112. How must you allocate your money among a number of investments so that your portfolio's overall rate of return will be the same as the simple average of the rates of return on individual investments?

113. A survey of 254 randomly chosen residences in a city revealed that 4 had four television sets, 22 had three sets, 83 had two sets, 140 had one set, and 5 had no TV set at all. Based on the survey, what would you estimate to be the average number of TV sets per household?

114. An investor accumulated 1800 shares of Corel Corporation over a period of several months. She bought 1000 shares at $15.63, 500 shares at $19.00, and 300 shares at $21.75. What was her average cost per share? (Note: Investors who purchase shares in the same company at more than one price must eventually do this calculation. Tax rules require that the capital gain or loss on the sale of any of the shares be calculated using the weighted-average price paid for all of the shares rather than the particular price paid for the shares actually sold.)

115. A hockey goalie's "goals against average" (GAA) is the average number of goals scored against him per (complete) game. In his first 20 games in goal, O. U. Sieve had one shutout, two 1-goal games, three 2-goal games, four 3-goal games, seven 4-goal games, two 6-goal games, and one 10-goal disaster. Calculate his GAA.

116. Serge's graduated commission scale pays him 3% on his first $30,000 in sales, 4% on the next $20,000, and 6% on all additional sales in a month. What will be his average commission rate on sales for a month totalling a) $60,000, b) $100,000?

117. The RBC Royal Bank offers an "add-on option" on fixed-rate mortgages. The option allows the customer to borrow additional funds partway through the term of the mortgage. The interest rate charged on the combined mortgage debt becomes the weighted average of the old rate on the former balance and the current competitive rate on new mortgage financing. Suppose Herschel and Julie had a mortgage balance of $37,500 at 8%, when they borrowed another $20,000 at 7%. What interest rate will they be charged by the RBC Royal Bank on the new consolidated balance?

118. Margot's grades and course credits in her first semester at college are listed below.

Grade	C+	B-	B+	C-	B	C
Credits	5	3	4	2	3	4

Using the table in Example 1.5D for converting Letter Grades to grade Point Value, calculate Margot's grade point average for the semester.

119.The distribution of scores obtained by 30 students on a quiz marked out of 10 is listed below.

Score	10	9	8	7	6	5	4	3	2	1
Number of Students	2	6	9	7	3	2	0	1	0	0

What was the average score on the test?

120.Alihan's transcript shows the following academic record for four semesters of part-time college studies. Calculate his cumulative GPA at the end of his fourth semester.

Semester	Credits	GPA
I	6	3.5
II	9	3.0
III	12	2.75
IV	7.5	3.2

121. The "age" of an account receivable is the length of time that it has been outstanding. At the end of October, a firm has $12,570 in receivables that are 30 days "old," $6,850 that are 60 days "old," and $1325 that are 90 days "old." What is the average "age" of its accounts receivable at the end of October?

122. One year ago, Sook-Yin allocated the funds in her portfolio among five securities in the proportions listed below. The rate of (total) return on each security for the year is given in the third column of the table.

Security	Portion invested	Rate of Return for the year
Company A Shares	15%	14%
Province A Bonds	20	10
Company C Shares	10	-13
Units in Fund D	35	12
Company E Shares	20	27

Calculate the rate of return for the entire portfolio.

123. One of the methods permitted by Generally Accepted Accounting Principles for reporting the value of a firm's inventory is weighted-average inventory pricing. The Boswell Corporation began its fiscal year with an inventory of 156 units valued at $10.55 per unit. During the year it made the purchases listed in the following table.

Date	Units Purchased	Unit Cost
February 10	300	$10.86
June 3	1000	10.47
August 23	500	10.97

At the end of the year, 239 units remained in inventory. Determine: a) The weighted-average cost of the units purchased during the year. b) The weighted-average cost of the beginning inventory and all units purchased during the year. c) The value of the ending inventory based on the weighted-average cost calculated in b.

124. Suppose a group of consumers spends 30% of its disposable income on food, 20% on clothing, and 50% on rent. If over the course of a year the price of food rose 10%, the price of clothing dropped 5%, and rent rose 15%, what was the average price increase experienced by these consumers?

125. A restaurant owner set her menu prices at a predetermined percentage of her input costs for food, ingredients, and beverages. The prices as a percentage of these costs for various menu categories are presented in the second column of the table. The third column presents the

Menu category	Menu price as a percentage of costs	Percentage of sales revenue
Appetizers	300%	10%
Entrees	200%	50%
Desserts	225%	25%
Beverages	250%	15%

breakdown of the restaurant's overall revenue from the four men categories. On average, what are menu prices as a percentage of the basic input costs? Overall, what are the input costs as a percentage of revenue?

126. The balance on Nucorp's revolving loan began the month at $35,000. On the eighth of the month another $10,000 was borrowed. Nucorp was able to repay $20,000 on the 25th of the 31-day month. What was the average balance on the loan during the month? (Use each day's closing balance as the loan balance for the day.)

127. A seasonal manufacturing operation began the calendar year with 14 employees. During the year, employees were taken on or laid off on various dates as presented in the table below.

Date	Employee changes
April 1	7 hired
May 1	8 hired
June 1	11 hired
Sept. 1	6 laid off
Oct. 1	14 laid off

What was the average number of employees on the payroll during the calendar year? (Assume that each month has the same length.)

128. Marcel must temporarily invest extra money in his retail business every fall to purchase additional inventory for the Christmas season. On September 1 he already had a total of $57,000 invested in his business. Subsequently, he invested or withdrew cash on various dates as shown in the following table.

Date	Additional injection or withdrawal
Oct. 1	$15,000 injection
Nov. 1	$27,000 injection
Feb. 1	$23,000 withdrawal
March 1	$13,000 withdrawal
May 1	$6000 withdrawal

What was the average cumulative investment in the business during the period from September 1 to August 31? (Assume that each month has the same length.)

129. When a company calculates its earnings per common share for its financial statements, it uses the weighted-average number of common shares outstanding during the year. Enertec Corp. began its fiscal year (January 1 to December 31) with 5 million common shares outstanding. Additional common shares were issued during the year as indicated in the following table.

Date	Event	Additional shares issued
March 1	New public offering	1,000,000
June 1	Employees and officers exercise stock options	500,000
Nov. 1	Convertible bonds exchanged for shares	750,000

What was average number of common shares outstanding during the year? (Assume that each month has the same length.)

130. Lien, the proprietor of a grocery store, prepares her Deluxe Nut Combo by mixing various ingredients she buys in bulk. The second column of the following table presents the amount of each ingredient Lien uses in making a batch of the Combo mix. In order to set the retail price of the Deluxe Nut Combo at 150% of her cost, Lien must determine her cost based on the average wholesale cost of the ingredients given in the third column.

Ingredient	Amount	Cost per kg
Peanuts	5 kg	$2.95
Cashews	2 kg	$9.50
Almonds	1 kg	$11.50
Sunflower seeds	500 g	$2.75
Raisins	400 g	$3.60
Smarties	300 g	$6.40

a. What is Lien's average cost per 100 g of her Deluxe Nut Combo?

b. What is her retail price per 100 g?

131. Johnston Distributing, Inc. files quarterly GST returns. The purchases on which it paid the GST and the sales on which it collected the GST for the last four quarters were as follows:

Quarter	Purchases	Sales
1	$596,476	$751,841
2	967,679	627,374
3	823,268	1,231,916
4	829,804	994,622

Calculate the GST remittance or refund due for each quarter. (GST = 6%)

132. Sawchuk's Home and Garden Centre files monthly GST returns. The purchases on which it paid the GST and the sales on which it collected the GST for the last four months were as follows:

Month	Purchases	Sales
March	$135,650	$57,890
April	213,425	205,170
May	176,730	313,245
June	153,715	268,590

Calculate the GST remittance or refund due for each month. (GST = 6%)

133. Calculate the total amount, including both GST and PST, that an individual will pay for a car priced at $39,500 in: a) Alberta b) Saskatchewan c) Quebec.

134. How much more will a consumer pay for an item listed at $1000 (pretax) in Prince Edward Island than in Manitoba?

135. Angie's Flower Shop charges 13% Harmonized Sales Tax (HST) on all purchases.

a) How much HST will she report for a plant priced at $39.45?

b) As of February 4, 2013, if a consumer pays cash and cannot give the exact change, the total amount of the transaction must be rounded up or down. How much change will be given if the above purchase is paid for with a $50 bill?

136. To attract shoppers, retailers occasionally advertise something like "Pay no hST!" Needless to say, neither the federal nor the provincial government is willing to forego its sales tax. In this situation, the retailer must calculate and remit the H as though the "ticket" price already includes these sales taxes. How much H must a retailer in New Brunswick report on a $495 item that he sells on a Pay-No-H basis? (Hint: What percentage is the HST of a H-inclusive price?)

137. What are the taxes on a property assessed at $227,000 if the mill rate is 16.8629?

138. a) Express a property tax increase of 0.1 mill in terms of dollars per $100 of assessed value?

b) If the mill rate increases by 0.1 mill, what is the dollar increase in property taxes on a $200,000 home?

139. The assessment on a farm consists of $143,000 for the house and $467,000 for the land and buildings. A mill rate of 15.0294 applies to residences, and a rate of 4.6423 applies to agricultural land and buildings. What are the total property taxes payable on the farm?

140. The assessed value on a property increased from $285,000 last year to $298,000 in the current year. Last year's property tax rate was $1.56324 per $100 of assessed value. a) What will be the change in the property tax from last year if the new tax rate is set at $1.52193 per $100? b) What would the new tax rate have to be for the dollar amount of the property taxes to be unchanged?

141. The school board in a municipality will require an extra $2,430,000 for its operating budget next year. The current mill rate for the school tax component of property taxes is 7.1253. a) If the total of the assessed values of properties in the municipality remains at the current figure of $6.78 billion, at what value must next year's school mill rate be set? b) If the total of all assessed values rises by 5% over this year's aggregate assessment, at what value must next year's school mill rate be set?

142. The total assessed value of property in Brockton has risen by $97 million from last year's figure of $1.563 billion. The property tax rate last year for city services was $0.94181 per $100 of assessed value. If the city's budget has increased by $750,000, what tax rate should it set for the current year?

143. Solve the following equation $\left(2^3-3\right)^2-20\div\left(2+2^3\right)$

144. Solve the following equation $\left[4\left(2\times3^2-2^3\right)^2\div\left(10-4\times5\right)\right]$

145. $\$213.85\left(1-0.095\times\frac{5}{12}\right)$

Solve the following equation

146. $\frac{\$2315}{1+0.0825\times\frac{77}{365}}$

Solve the following equation

147. $\$325.75\left(1+\frac{0.105}{4}\right)^{2}$

Solve the following equation

148. $\dfrac{\$710}{\left(1+\frac{0.0925}{2}\right)^3}$

Solve the following equation

149. $\$885.75\left(1+0.0775\times\dfrac{231}{365}\right)-\dfrac{\$476.50}{1+0.0775\times\frac{49}{365}}$

Solve the following equation

150. $\$859\left(1+\dfrac{0.0825}{12}\right)^3+\dfrac{\$682}{\left(1+\frac{0.0825}{12}\right)^2}$

Solve the following equation

151. Evaluate the following: $96-\left(6-4^{2}\right)\times 7-2$

152. Evaluate the following: $81\div\left(5^{2}-16\right)-4\left(2^{3}-13\right)$

153. Evaluate the following: $\dfrac{\$827.69}{1+0.125\times\frac{273}{365}}+\$531.49\left(1+0.125\times\dfrac{41}{365}\right)$

154.

$$\$550.45\left(1+0.0875\times\frac{195}{365}\right)-\frac{\$376.29}{1+0.0875\times\frac{99}{365}}$$

Evaluate the following:

155.

$$\$1137\left(1+\frac{0.0975}{12}\right)^{2}+\frac{\$2643}{\left(1+\frac{0.0975}{12}\right)^{3}}$$

Evaluate the following:

156.What amount is 62% of $99?

157.What is 80% of $156.25?

158.¾% of $133. $\overline{33}$ is what amount?

159.How many minutes is 12.5% in 2 hours?

160. The profit forecast for the most recent fiscal quarter is $23,400. The actual profit is 90% of the forecast profit. What is the actual profit?

161. Renalda sold Westel stock that she purchased at $2.20 per share one year ago for a 35% gain. At what price did she sell the stock?

162. Luther is paid an annual salary of $56,600 based on a 37½-hour workweek.

a) What is his equivalent hourly wage? (Assume that a year has exactly 52 weeks).

b) What would be his total remuneration for a bi-weekly pay period of that year if he worked 4.5 hours of overtime at time and a half?

163. Istvan earns an annual salary of $61,000 as an executive with a provincial utility. He is paid biweekly. During a strike, he worked 33 hours more than the regular 75 hours for a two-week pay period. What was his gross pay for that period if the company agreed to pay 1.5 times his equivalent hourly rate for overtime? (Assume that a year has exactly 52 weeks.)

164. Sonja is paid $42.50 per hour as a veterinarian. She is paid 1½ times the regular rate for all time exceeding 7½ hours in a day or 37½ hours per week. Work on a statutory holiday is paid at double time. What were her gross earnings for a week in which she worked 6, 0, 3, 7½, 9, 7½, and 8 hours on Saturday to Friday, respectively, and the Monday was a statutory holiday?

165. Marion receives a monthly base salary of $1000. On the first $10,000 of sales above her monthly quota of $20,000, she is paid a commission of 8%. On any additional sales, the commission rate is 10%. What were her gross earnings for the month of August, in which she had sales amounting to $38,670?

166. Lauren's gross pay for July was $3188.35 on net sales totalling $88,630. If her base salary is $1000 per month, what is her rate of commission on sales exceeding her monthly quota of $40,000?

167. Havel signed a listing agreement with a realtor. The commission rate is 4% on the first $200,000 of the selling price, and 2.5% on the remainder. a) What commission will Havel pay if he sells his home for $289,000? b) What is the average commission rate on the selling price?

168. "Souvenirs and Such" is a gift shop in Niagara Falls. Last year 22% of its revenue came from the sale of clothing, 18% from food items, and 32% from novelty items and the remainder from special services they provide for tourists. This past year they experienced a 5% increase in the sale of clothing, a 2% increase in the sale of food items, a 9% drop in novelty items and a 2% drop in special services. What is the average change in their revenue for this year?

169. Ms. Yong invested a total of $73,400 in three mutual funds as shown in the table below. The third column shows the change in value of each fund during the subsequent six months.

Mutual Fund	Amount Invested ($)	Change in value (%)
Canadian equity fund	16,800	–4.3
US equity fund	25,600	–1.1
Global equity fund	31,000	8.2

What was the percent change in value of Ms. Yong's overall mutual fund portfolio during the six-month holding period?

170. One year ago Helga allocated the funds in her portfolio among five securities in the amounts listed in the following table. The rate of return on each security for the year is given in the third column of the table.

Security	Amount Invested	Rate of return for the year
Company U shares	$5000	30%
Province V bonds	20,000	-3
Company W shares	8000	-15
Units in Fund X	25,000	13
Company Y shares	4500	45

Calculate the rate of return for the entire portfolio.

171. Anthony began the year with $96,400 already invested in his Snow 'n Ice retail store. He withdrew $14,200 on March 1 and another $21,800 on April 1. On August 1, he invested $23,700, and on November 1 he contributed another $19,300. What was his average cumulative investment during the year? (Assume that each month has the same length.)

172. The fiscal year for Pine Valley Skiing Ltd., the owner of a downhill skiing facility, ends on June 30. The company began the recently completed fiscal year with its summer maintenance crew of 7. The following table presents the sequence of employees hired and layoffs during the fiscal year.

Date	Employee changes
Sept. 1	6 hired
Nov. 1	18 hired
Dec. 1	23 hired
Mar. 1	11 laid off
Apr. 1	20 laid off
May 1	16 laid off

What was the average number of employees working for Pine Valley during the fiscal year? (Assume that each month has the same length.)

173. $\$250\left(1+0.05\times\frac{145}{365}\right)$

Evaluate the answer correct to the cent:

174. $\dfrac{\$2500}{1+0.06\times\dfrac{8}{12}}$

Evaluate the answer correct to the cent:

175. $\dfrac{\$5000}{(1+0.04)^2}$

Evaluate the answer correct to the cent:

176. $\$700(1+0.05)^3$

Evaluate the answer correct to the cent:

177. $\$1100\left(\frac{(1+0.05)^2-1}{0.05}\right)$

Evaluate the answer correct to the cent:

178. $\$3000\left(1+0.04\times\frac{285}{365}\right)$

Evaluate the answer correct to the cent:

179. $\frac{\$750}{1+0.04\times\frac{5}{12}}$

Evaluate the answer correct to the cent:

180. $\dfrac{\$100}{1+.025\times\dfrac{13}{12}}$

Evaluate the answer correct to the cent:

181. $\dfrac{\$1000}{(1+0.05)^2}$

Evaluate the answer correct to the cent:

182. $\$1700(1+0.04)^3$

Evaluate the answer correct to the cent:

183. $\$6000\left(\frac{(1+0.045)^2-1}{0.045}\right)$

Evaluate the answer correct to the cent:

184. Solve the following equation $30 \div 3 + 12 \div 4$

185. Solve the following equation $30 \div (3 + 12) \div 2$

186. Solve the following equation $12+3\left[2+(4^2-13)^2\right]^2$

187. Solve the following equation $5-(2-4)^2+2^3-4^2$

188. Convert the following to its decimal and percent equivalents. $2\frac{2}{5}$

189. Convert the following to its decimal and percent equivalents. $\frac{0.050}{4}$

190. Evaluate: $\$500\left[\frac{(1+0.04)^6-1}{0.04}\right]$

191. Evaluate: $\frac{\$80\left[1-\frac{1}{(1+\frac{0.03}{2})^4}\right]}{\frac{0.03}{2}}+\frac{1000}{(1+\frac{0.03}{2})^4}$

192.What is 0.54% of $200?

193.20% of $75 is what amount?

194.Syed's net pay is 81% of his gross pay. His net pay for two weeks is $1069.20. What is his gross pay for two weeks?

195.What amount is 130% percent of $1150?

196.Hany earns $17.00 per hour for a forty-hour week. His overtime rate is 1 ½ times any hours exceeding forty in a week. What will Sam's gross earnings be for a week if he works 42.5 hours?

197.Surinder works in a retail store in Square One in Mississauga. She earns a base salary of $320 per week, and a commission of 3% on sales over her quota of $5000. How much will Larissa earn if her sales for the week are: a) $4500? b) $8500?

198. Kristina is a sales representative for a pharmaceutical company. She is paid the greater of $3500 per month or 5% of sales. a) What are her earnings for the month if her sales are $60,000? $78,000? b) At what volume of sales per month will she start to earn more from the commission-based compensation?

199. Safa's gross pay last month was $3300.00. Her base salary is $3000 per month, plus a commission of 2% on sales over $60,000. What were Safa's sales for last month?

200. Cliff is a sales manager for a convention centre. He is paid on a graduated commission scale of 0.5% on the first $200,000, 0.7% on the next $300,000, and 0.8% on all additional sales for the month. What are Cliff's gross earnings in a month in which he sells: a) $400,000? b) $700,000?

201. Fatima took six courses last semester. Her grades and course credits are as follows:

Course	Grade	Credits
Accounting	B+	3
Business Mathematics	A	4
Human Resources	B	3
Economics	C+	3
Computer Applications	A	2
Marketing	B	3

Using the Letter Grade to Grade Point Value conversion table in Example 1.4D, calculate her grade point average for the semester.

202. The following grades are from the first business mathematics test in the semester. What is the class average?

Grade	Number of Students
100	2
97	3
95	4
91	1
88	2
87	2
85	3
80	5
78	3
77	2
75	4
65	2
60	3
58	4
41	1
40	1

203. Mrs. Sandhu invested $10,000 at 5%, $15,000 at 4%, and $20,000 at 3%. Calculate Mrs. Sandhu's overall rate of return.

204. Akini is paid on a graduated commission scale of 1% on his first $200,000 in sales, 2% on the next $300,000, and 4% on all additional sales in a month. What is Akini's average commission rate on monthly sales totalling $600,000?

205. Jenna bought a car for $42,050.90, which included 8% PST and 5% GST. What was the selling price of the car?

206. M Studios files GST returns quarterly. In the last quarter, M Studios sold picture frames totalling $3,750, photographic equipment for $78,225, and billed $43,580 for studio work. In the same time period, M Studios paid $3,000 for rent, $1275 for utilities, and purchased goods subject to GST for $65,000. What GST must be remitted by M Studios (or refunded by the CRA) for this quarter? (Assume GST = 5%)

207. Sam buys a sweater listed at $100. How much will he pay for the sweater including taxes in: a) Ontario? b) Quebec? c) Alberta? d) Manitoba?
(Assume GST = 5%)

208. The town of Simcoe is considering raising the $2 billion required for a sports complex by approving a new capital levy component of the property tax. The levy must be collected over the next five years. If the total assessed value of property in the town is $875 billion, what additional tax will a home owner of a property assessed at $300,000 pay?

209. Evaluate 8 - 5 × 2 - 3 =

A. -5
B. 3
C. 5
D. -3
E. 15

210. Evaluate 8 - 4 × (2 - 3) =

A. -4
B. 12
C. 5
D. 11
E. 4

211.Evaluate 18 ÷ 3 + 8 - 4 × 2 - 3 =

A. 17

B. 25

C. 3

D. 11

E. 4

212.Evaluate 18 ÷ 3 + (8 - 4) × (2 - 3) =

A. -10

B. 17

C. -18

D. 2 E. 4

213.Evaluate $8 - 4 \times (2 - 3)^2$ =

A. 25

B. -1

C. 12

D. 17

E. 4

214.Evaluate $6 - 2 + 3 \times (2 - 3)^2 =$

A. 7

B. 12

C. -12

D. -1

E. 1

215.Evaluate the following:

$$\frac{3(2 + 1)^2 + 5^2}{4 - 3^2}$$

A. -7.4

B. -10.4

C. -14.8

D. 10.4

E. 7.4

216.Evaluate $3(8 - 4)^2 \times (2 - 3)^2 =$

A. 400

B. -400

C. 48

D. -48

E. 93

217. Evaluate $3[4 + (5 - 3)^2]^2$ =

A. 256

B. 38,416

C. 3600

D. 192

E. 576

218. Evaluate $(2 - 3 \times 4)^2 - 5 \times (5 - 6)^2$ =

A. 11

B. 125

C. -21

D. 95

E. 395

219. Evaluate $\$1200\left(1 + .0625 \times \frac{7}{12}\right)$

A. $743.75

B. $1725.00

C. $700.04

D. $1637.50

E. $1243.75

220. Evaluate $\$1000\left(1+.045\times\frac{17}{12}\right)$

A. $1063.75

B. $1416.73

C. $1765.00

D. $1637.50

E. $1480.42

221. Evaluate $\$750\left(1-.0575\times\frac{150}{365}\right)$

A. $749.98

B. $732.28

C. $308.20

D. $572.77

E. $767.72

222. Evaluate $\$650\left(1-.0625\times\frac{21}{12}\right)$

A. $1137.39

B. $721.09

C. $578.91

D. $446.88

E. $576.06

223. Evaluate $\dfrac{\$1050}{\left(1+\dfrac{0.065}{12}\right)^{3}}$

A. $1067.16

B. $1035.95

C. $896.32

D. $1033.12 E. $1502.05

224. Evaluate $\dfrac{\$25,000}{\left(1+\dfrac{0.07}{12}\right)^{4}}$

A. $25,588.46

B. $19,927.38

C. $19,072.38

D. $24,855.01

E. $24,425.08

225. Evaluate $\dfrac{\$1500\left(1+0.055\times\dfrac{3}{12}\right)}{1+0.10\times\dfrac{9}{12}}$

A. $1414.53

B. $1843.18

C. $348.85

D. $454.56

E. $1625.58

226.

$$\frac{\$1750\left(1+\frac{0.11}{4}\right)^{3}}{1+0.075\times\frac{275}{365}}$$

Evaluate

A. $1701.95

B. $1796.85

C. $2265.35

D. $1897.86

E. $2392.70

227.

$$\$20,000\left[\frac{\left(1+\frac{0.05}{2}\right)^{4}-1}{\frac{0.05}{2}}\right]$$

Evaluate

A. $172,405.00

B. $82,207.63

C. $83,050.31

D. $41,525.16

E. $86,202.50

228. Evaluate $\$675\left[\dfrac{\left(1+\dfrac{0.065}{4}\right)^{6}-1}{\dfrac{0.065}{4}}\right]$

A. $2766.53

B. $1054.53

C. $19,072.06

D. $4218.14

E. $45,756.60

229. Evaluate $\dfrac{\$900}{\dfrac{\left(1+\dfrac{0.055}{4}\right)^{7}-1}{\dfrac{0.055}{4}}}$

A. $493.46

B. $27.22

C. $900.00

D. $84.52

E. $123.36

230.

$$\frac{\$2500}{\frac{\left(1-\frac{0.065}{2}\right)^{4}+1}{\frac{0.065}{2}}}$$

Evaluate

A. $43.31

B. $38.03

C. $86.61

D. $83.98

E. $48.51

231.

$$\$110\left[1-\frac{3}{\left(1+\frac{0.085}{12}\right)^{5}}\right]-\frac{\left(1+\frac{0.085}{12}\right)^{4}}{\frac{0.085}{12}}$$

Evaluate

A. -$404.21

B. -$353.78

C. -$185.74

D. -$208.56

E. -$145.22

232. Evaluate $\$1500\left[1+\frac{1}{\left(1-\frac{0.04}{12}\right)^3}\right]-\frac{\left(1+\frac{0.04}{12}\right)^3}{\frac{0.04}{12}}$

A. $1489.85

B. $2892.41

C. $2712.09

D. $1177.64

E. $1818.11

233. What amount is 230% of $450?

A. $103,500

B. $1.035

C. $51.11

D. $1035

E. $195.65

234. What amount is 0.04% of $200,000?

A. $8000

B. $800

C. $8

D. $.80

E. $80

235.4.9% of $2750 is what amount?

A. $134.75

B. $13,475

C. $2,884.75

D. $13.48

E. $284.48

236.What is 0.05% of $9100?

A. $455.00

B. $4.55

C. $4550.00

D. $45.50

E. $0.455.

237.What is 13.5% of $5000?

A. $67.5

B. $6.75

C. $675

D. $6,750.00

E. $0.675

238.What is 2500% of $1625?

A. $4,0625
B. $406.25
C. $40.63
D. $40,625
E. $4,062

239.78% of $249.60 is what amount?

A. $151.86
B. $269.07
C. $26.91
D. $19.47
E. $194.69

240.24% of $675 is what amount?

A. $162
B. $16.88
C. $691.20
D. $123.12
E. $389.88

241.0.0⅞ % of $10,000 is what amount?

A. $87.50

B. $8.75

C. $87,500

D. $8,750

E. $875

242.0.0¾ % of $6000 is what amount?

A. $0.45

B. $45.00

C. $4.50

D. $450.00

E. $4,500.00

243.Nitin earns $48,000 per year. Determine his gross earnings each pay period in a year if he is paid biweekly. Assume there are 52 weeks in the year.

A. $2000

B. $4000

C. $923.08

D. $1846.15

E. $1923.08

244. Nitin earns $48,000 per year for a forty-hour work week. Determine his hourly rate of pay if he is paid biweekly. Assume there are 52 weeks in the year.

A. $250.00
B. $24.04
C. $46.50
D. $50.00
E. $23.08

245. Nitin is paid a base salary of $200 per week and commission at the rate of 3% for sales over $5000, 4% if his sales are over $8000, and 5% if sales are over $15,000. How much will Nitin earn in a week in which his sales are $20,000?

A. $1200
B. $1000
C. $800
D. $600
E. $200

246. Nitin is paid a base salary of $300 per week and commission at the rate of 2.5% for sales over $5000, 4% if his sales are over $10,000, and 4.5% if sales are over $25,000. How much will Nitin earn in a week in which his sales are $20,000?

A. $800
B. $1100
C. $900
D. $1200
E. $1125

247. Nitin is paid on a graduated commission scale. His base salary is $250 per week and he receives commission at the rate of 2.5% for the first $5000 of sales in a week, 4% on the next $10,000, and 4.5% on all further sales. How much will Nitin earn in a week in which his sales are $30,000?

A. $1200
B. $1350
C. $1450
D. $1600
E. $1000

248. Nitin is paid on a graduated commission scale. His base salary is $1500 per month and he receives commission at the rate of 2% for the first $10,000 of sales in a month, 3% on the next $20,000, and 4.5% on all further sales. How much will Nitin earn in a month in which his sales are $60,000?

A. $2150
B. $2250
C. $3750
D. $3650
E. $2500

249. A sales representative is paid the greater of $950 or 8% of sales. At what volume of sales will he start to earn more from the commission-based compensation?

A. $9500

B. $1026

C. $1875

D. $1187.50

E. $11,875

250. A sales representative is paid the greater of $1275 per week or 9% of sales. At what volume of sales will she start to earn more from the commission-based compensation?

A. $14,166.67

B. $1389.75

C. $2295

D. $2422.50

E. $12,750

251. Nitin is paid on a graduated commission scale. He receives commission at the rate of 2.5% for the first $5000 of sales in a week, 4% on the next $10,000, and 4.5% on all further sales. What is Nitin's average rate of commission in a week in which his sales are $30,000?

A. 3.67%

B. 4%

C. 3.33%

D. 3.75%

E. 4.25%

252. Nitin is paid on a graduated commission scale. He receives commission at the rate of 2% for the first $10,000 of sales in a month, 3% on the next $20,000, and 4.5% on all further sales. What is Nitin's average rate of commission in a month in which his sales are $60,000?

A. 3.167%

B. 3.417%

C. 3.583%

D. $5

E. 3.83%

253. Safa is paid a base salary of $1500 per month and a commission of 6% on all sales over $75,000. Last month, Safa's gross salary was $4440. What were her sales for the month?

A. $49,000

B. $75,266.40

C. $149,000

D. $124,000

E. $100,000

254. Isaac earns a base salary of $1250 per month and a graduated commission of 0.4% on the first $100,000 of sales, and 0.5% on sales over $100,000. Last month, Isaac's gross salary was $2025. What were his sales for the month?

A. $75,000

B. $200,000

C. $312,500

D. $250,000

E. $175,000

255.Elita took six courses last semester. Her grades and course credits are as follows:

Course	Grade	Credits
Accounting	B+	4
Business Mathematics	A	4
Human Resources	B	3
Economics	C+	4
Computer Applications	C	2
Marketing	D	3

Use the Letter Grade to Grade Point Value conversion table below to calculate her grade point average for the semester.

Letter Grade	Grade Points
A+	4.0
A	4.0
B+	3.5
B	3.0
C+	2.5
C	2.0
D	1.0
F	0.0

A. 2.8

B. 2.7

C. 3.3

D. 3.0

E. 3.5

256.Jayelle took six courses last semester. Her grades and course credits are as follows:

Course	Grade	Credits
Finance	B+	4
Statistics	C	2
General Education	B+	3
Macro Economics	B	3
Cost Accounting	B	4
Computer Applications	A+	2

Use the Letter Grade to Grade Point Value conversion table below to calculate her grade point average for the semester.

Letter Grade	Grade Points
A+	4.0
A	4.0
B+	3.5
B	3.0
C+	2.5
C	2.0
D	1.0
F	0.0

A. 3.75

B. 3.2

C. 3.0

D. 2.6

E. 2.8

257. Kuldip invested $5000 at 6%, $10,000 at 5.5%, and $20,000 at 4%. What is the average rate of interest earned by her investments?

A. 5.2%

B. 5%

C. 4.7%

D. 5.25%

E. 4.75%

258. Carlos invested $10,000 at 7%, $20,000 at 6.5%, and $50,000 at 5%. What is the average rate of interest earned by his investments?

A. 6.2%

B. 5.5%

C. 5.8%

D. 5.6%

E. 6.3%

259. A customer has a first mortgage of $100,000 at 5.5% and a second mortgage of $50,000 at 7.8%. What is the average rate of mortgage that the customer pays?

A. 6.7%

B. 7%

C. 5.9%

D. 6.5%

E. 6.3%

260. A client has a first mortgage of $175,000 at 5.8% and a second mortgage of $25,000 at 6.7%. What is the average rate of mortgage that the client pays?

A. 5.9%

B. 6.3%

C. 6.5%

D. 6%

E. 6.2%

261. Sonal bought a coat for $198.88, which included 8% PST and 5% GST. What was the selling price of the coat?

A. $175.38

B. $176.00

C. $173.03

D. $182.97

E. $179.99

262. Sonal bought a new sound system for her car costing $604.79. Sonal lives in Calgary, and so the price included 5% GST. What was the selling price of the new sound system?

A. $573.17

B. $574.58

C. $575.99

D. $616.31

E. $570.66

263. Calculate the PST on a sweater costing $59.95 in Manitoba, Alberta, and Quebec. (Assume 5% GST).

A. $4.77; $0.00; $5.98
B. $4.80; $4.77; $4.50
C. $4.80; $4.50; $4.77
D. $4.80; $0.00; $5.98
E. $4.77; $0.00; $4.20

264. Calculate the PST on a jacket costing $89.50 in Alberta, Manitoba, and Saskatchewan.

A. $0.00; $5.71; $6.27
B. $6.27; $6.27; $4.48
C. $5.37; $7.16; $5.27
D. $6.27; $6.27; $5.37
E. $0.00; $7.16; $4.48

265. M Studios (Calgary) had retail sales of $166,425, including GST, for the last quarter. In the same period M Studios purchased $45,000 worth of supplies and paid $75,000 for store renovations, plus the GST on these goods and services. What GST must be remitted by M Studios (or refunded) for the last quarter? (Assume GST = 5%).

A. $1925
B. $2321.25
C. $14,323.26
D. $6071.25
E. $4573.26

266. M Studios (Ontario) had retail sales of $288,528.55, including HST, for the last quarter. In the same period M Studios purchased $250,000 worth of supplies and paid the GST on these goods. What GST must be remitted by M Studios (or refunded) for the last quarter? (Assume 8% PST and 5% GST).

A. $50.99

B. $266.75

C. $1926.43

D. $426.80

E. $5008.71

267. A homeowner's tax statement lists the following mill rates for various municipal services:

Tax Rate	Mill Rate
Schools	6.75
City	7.21
Water	0.92
Sewers	0.87

What is the property tax on a house assessed at $300,000?

A. $4464

B. $4449

C. $4725

D. $2562

E. $2700

268.A homeowner's tax statement lists the following mill rates for various municipal services:

Tax Rate	Mill Rate
Schools	6.75
City	7.21
Water	0.92
Sewers	0.87

The homeowner paid $3937.50 in property taxes last year. What is the assessed value of his property?

A. $264,617

B. $265,509

C. $461,066

D. $250,000

E. $437,500

269. Evaluate: $\frac{\frac{3}{4}+\frac{7}{5}}{\frac{11}{6}-\frac{10}{12}}=$

A. 0.465

B. 0.80625

C. 1.24031

D. 12.9

E. 2.15

270.(8 - 5 / 2) / (12 * 3 - 6)

A. 5.4545

B. 0.05

C. -0.1528

D. 6.5454

E. 0.1833

271.Evaluate 0.5 × 0.001 =

A. 0.0005

B. 0.005

C. $\frac{51}{10,000}$

D. $\frac{3}{2000}$

E. 5000

272. Evaluate $\frac{\frac{6}{7}+\frac{2}{3}}{\frac{3}{7}}$

A. 24.89

B. 3.556

C. 4.190

D. 6.429

E. 5.071

273.Evaluate (8 / 5 - 2) / (12 - 2 - 4) =

A. 2.4

B. -0.067

C. -2.4

D. 0.444

E. -l.0

274.Evaluate -14(2) + 16 / 32 + 4 =

A. -22

B. $-24\frac{1}{2}$

C. $-28\frac{4}{9}$

D. $-24\frac{4}{9}$

E. $-23\frac{1}{2}$

275.Evaluate $(25 - 9) / (6 - 2)^2$ =

A. 256

B. 1

C. 8

D. 4

E. 0.5

276. Evaluate $\dfrac{5 - (6 - 14)}{200 - 0.25 \times \dfrac{3000}{15}}$ =

A. 0.1267

B. 0.052

C. 0.0867

D. 0.076

E. -0.07667

277. Evaluate $16 - 4\left(1 - 0.3 \div \dfrac{435}{650}\right)$ =

A. 6.621

B. 17.379

C. 13.793

D. 10.207

E. 12.803

278. Express as a percent: $\dfrac{40.3}{80}$

A. 50.375%

B. 0.0050375%

C. 0.50375%

D. 5.0375%

E. 503.75%

279. A piece of property valued at $2,000,000 is assessed for property tax purposes at 70% of its value. If the property tax is $20.00 on each $1000.00 of assessed value, what is the amount of tax?

A. $23,700.00
B. $4000.00
C. $28,000.00
D. $12,000.00
E. $40,000.00

280. Calculate the price including both GST and PST, that an individual will pay for a car sold for $26,995.00 in Manitoba (Assume GST = 5% and PST = 8%)

A. $28,334.75
B. $30,504.35
C. $29,154.60
D. $30,234.40
E. $26,995.00

281. If the mill rate increases by 0.25 mills, what will be the dollar increase in property taxes on a house assessed at $380,000?

A. $950.00
B. $0.95
C. $9500
D. $95.00
E. $9.50

282. Fred has an annual salary of $40,000.00. He is paid semi-monthly and his regular workweek is 40 hours. What is his regular salary per pay period?

A. $1538.46

B. $1458.33

C. $3076.92

D. $1666.67

E. $3333.33

283. A class of 25 students wrote a term test. The results out of 30 marks are as follows:

Score:	10	15	20	25	30
Number of Students:	2	3	10	6	4

What was the average score on the test?

A. 20

B. 25

C. 22

D. 21.4

E. 17.5

284. An investor purchased shares of Acme Company as follows: 500 shares @ $10 per share, 10,000 shares @ $6.00 per share, and 1000 shares at $4.00 per share. What is the investor's average cost per share?

A. $7.00
B. $6.00
C. $6.67
D. $23,000
E. $6.50

A municipality requires an extra $3,000,000 for its operating budget next year. The current mill rate is 8.3573 and the assessed values of properties in the municipality remains constant at $8.58 billion.

285. Calculate next year's mill rate.

A. 8.3497
B. 8.3923
C. 11.8538
D. 9.7684
E. 8.7070

286. If the total of all assessed values rises by 5% over the current assessment, at what value must next year's mill rate be set?

A. 8.6903

B. 8.2923

C. 7.9923

D. 9.7684

E. 8.3906

Fred is paid an annual salary of $45,800 on a biweekly schedule for a 40-hour work week and 26 biweekly periods per year.

287. What is his gross salary per pay period?

A. $1908.33

B. $1815.93

C. $1616.18

D. $1755.51

E. $1761.54

288. What is his hourly pay rate?

A. $44.44

B. $43.89

C. $47.71

D. $44.04

E. $38.76

289. What is his total remuneration for a two-week period in which he worked 4.5 hours overtime at time-and-a-half?

A. $2058.81

B. $2230.36

C. $1858.23

D. $1953.02

E. $2051.75

Store A sold 30 units at $1.25 per unit.
Store B sold 60 units at $1.95 per unit.
Store C sold 9 units at $1.50 per unit.

290. Ignoring the quantities sold, what was the average unit selling price for the three stores?

A. $0.33

B. $1.57

C. $155.10

D. $51.70

E. $1.70

291. Recognizing the quantities sold, what was the average selling price per unit?

A. $0.33

B. $1.57

C. $155.10

D. $51.70

E. $1.70

c1 Key

1. Evaluate the following accurate to the cent: 20 - 4 × 2 - 8

4

Difficulty: Easy
Jerome - Chapter 01 #1
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Student text
Topic: Basic Mathematics
Type: Word

2. Evaluate the following accurate to the cent: 18 ¸ 3 + 6 × 2

18

Difficulty: Easy
Jerome - Chapter 01 #2
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Student text
Topic: Basic Mathematics
Type: Word

3. Evaluate the following accurate to the cent: (20 - 4) × 2 - 8

24

Difficulty: Easy

Jerome - Chapter 01 #3
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Student text
Topic: Basic Mathematics
Type: Word

4. Evaluate the following: 18 ¸ (3 + 6) × 2

4

Difficulty: Easy
Jerome - Chapter 01 #4
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Student text
Topic: Basic Mathematics
Type: Word

5. Evaluate the following: 20 - (4 × 2 - 8)

20

Difficulty: Easy
Jerome - Chapter 01 #5
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Student text
Topic: Basic Mathematics
Type: Word

6. Evaluate the following: (18 ¸ 3 + 6) × 2

24

Difficulty: Easy

Jerome - Chapter 01 #6
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Student text
Topic: Basic Mathematics
Type: Word

7. Evaluate the following: $54 - 36 \div 4 + 2^2$

49

Difficulty: Easy
Jerome - Chapter 01 #7
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Student text
Topic: Basic Mathematics
Type: Word

8. Evaluate the following: $(5 + 3)^2 - 3^2 \div 9 + 3$

66

Difficulty: Easy
Jerome - Chapter 01 #8
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Student text
Topic: Basic Mathematics
Type: Word

9. Evaluate the following: $(54 - 36) \div (4 + 2)^2$

0.5

Difficulty: Easy

Jerome - Chapter 01 #9
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Student text
Topic: Basic Mathematics
Type: Word

10. Evaluate the following: $5 + (3^2 - 3)^2 \div (9 + 3)$

8

Difficulty: Easy
Jerome - Chapter 01 #10
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Student text
Topic: Basic Mathematics
Type: Word

11. Evaluate the following: $\frac{8^2 - 4^2}{(4-2)^3}$

6

Difficulty: Easy
Jerome - Chapter 01 #11
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Student text
Topic: Basic Mathematics
Type: Word

12. Evaluate the following: $\frac{(8-4)^2}{4-2^3}$

-4

Difficulty: Easy
Jerome - Chapter 01 #12
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Student text
Topic: Basic Mathematics
Type: Word

13. Evaluate the following: $3(6 + 4)^2 - 5(17 - 20)^2$

255

Difficulty: Medium
Jerome - Chapter 01 #13
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Student text
Topic: Basic Mathematics
Type: Word

14. Evaluate the following: $(4 \times 3 - 2)^2 \div (4 - 3 \times 2^2)$

-12.5

Difficulty: Medium
Jerome - Chapter 01 #14
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Student text
Topic: Basic Mathematics
Type: Word

15. Evaluate the following: [(20 + 8 × 5) - 7 × (- 3)] ¸ 9

9

Difficulty: Medium
Jerome - Chapter 01 #15
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Student text
Topic: Basic Mathematics
Type: Word

16. Evaluate the following: $5[19 + (5^2 - 16)^2]^2$

50,000

Difficulty: Medium
Jerome - Chapter 01 #16
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Student text
Topic: Basic Mathematics
Type: Word

17. Evaluate the following accurate to the cent: $\$100\left(1+0.06\times\frac{45}{365}\right)$

$100.74

Difficulty: Medium
Jerome - Chapter 01 #17
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Student text

Topic: Basic Mathematics

Type: Word

18. Evaluate the following accurate to the cent: $\dfrac{\$200}{1+0.09\times\dfrac{4}{12}}$

$194.17

Difficulty: Medium

Jerome - Chapter 01 #18

Learning Objective: 01-01 Perform arithmetic operations in their proper order.

Source: Student text

Topic: Basic Mathematics

Type: Word

19. Evaluate the following accurate to the cent: $\dfrac{\$500}{(1+0.05)^2}$

$453.51

Difficulty: Medium

Jerome - Chapter 01 #19

Learning Objective: 01-01 Perform arithmetic operations in their proper order.

Source: Student text

Topic: Basic Mathematics

Type: Word

20. Evaluate the following accurate to the cent: $\$1000(1+0.02)^3$

$1,061.21

Difficulty: Medium
Jerome - Chapter 01 #20
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Student text
Topic: Basic Mathematics
Type: Word

21. Evaluate the following accurate to the cent: $\$100\left(\frac{(1+0.04)^2-1}{0.04}\right)$

$204.00

Difficulty: Medium
Jerome - Chapter 01 #21
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Student text
Topic: Basic Mathematics
Type: Word

22. Evaluate the following accurate to the cent:

$$\$300\left[\frac{1-\frac{1}{(1+0.03)^2}}{0.03}\right]$$

$574.04

Difficulty: Hard
Jerome - Chapter 01 #22
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Student text
Topic: Basic Mathematics
Type: Word

23. If you want four-figure accuracy in your answer, what minimum number of figures must be retained in the values used in the calculations? A) 4 B) 5 C) 6

B: five figures

Difficulty: Easy
Jerome - Chapter 01 #23
Learning Objective: 01-02 Convert fractions to their percent and decimal equivalents.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Concept

24. For a final result of approximately $7000 to be accurate to the cent, what minimum number of figures must be maintained in the values used in the calculations? A) 6 B) 7 C) 8

B: seven figures

Difficulty: Easy
Jerome - Chapter 01 #24
Learning Objective: 01-02 Convert fractions to their percent and decimal equivalents.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Concept

25. If a final result of the order of five million dollars is to be accurate to the nearest dollar, what minimum number of figures must be maintained in the calculations? A) 6 B) 7 C) 8

C: eight figures

Difficulty: Easy
Jerome - Chapter 01 #25
Learning Objective: 01-02 Convert fractions to their percent and decimal equivalents.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Concept

26. If an interest rate (which could be greater than 10%) is to be calculated to the nearest 0.01%, what minimum number of digits must be retained in the numbers used to calculate the interest rate? A) 3 B) 4 C) 5

C: five figures

Difficulty: Easy
Jerome - Chapter 01 #26
Learning Objective: 01-02 Convert fractions to their percent and decimal equivalents.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Concept

27. The following fraction has a terminating decimal equivalent form. Express its decimal and percent equivalent forms to five-figure accuracy: $\frac{7}{8}$

0.875 = 87.500%

Difficulty: Easy
Jerome - Chapter 01 #27
Learning Objective: 01-02 Convert fractions to their percent and decimal equivalents.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

28. The following fraction has a terminating decimal equivalent form. Express its decimal and percent equivalent forms to five-figure accuracy: $\frac{65}{104}$

0.625 = 62.500%

Difficulty: Easy
Jerome - Chapter 01 #28
Learning Objective: 01-02 Convert fractions to their percent and decimal equivalents.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

29. The following fraction has a terminating decimal equivalent form. Express its decimal and percent equivalent forms to five-figure accuracy: $\frac{47}{20}$

2.35 = 235.00%

Difficulty: Easy
Jerome - Chapter 01 #29
Learning Objective: 01-02 Convert fractions to their percent and decimal equivalents.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

30. The following fraction has a terminating decimal equivalent form. Express its decimal and percent equivalent forms to five-figure accuracy: $-\frac{9}{16}$

-0.5625 = -56.25%

Difficulty: Easy
Jerome - Chapter 01 #30
Learning Objective: 01-02 Convert fractions to their percent and decimal equivalents.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

31. The following fraction has a terminating decimal equivalent form. Express its decimal and percent equivalent forms to five-figure accuracy: $\frac{-35}{25}$

-1.4 = -140.00%

Difficulty: Easy
Jerome - Chapter 01 #31
Learning Objective: 01-02 Convert fractions to their percent and decimal equivalents.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

32. The following mixed number has a terminating decimal equivalent form. Express its decimal and percent equivalent forms to five-figure accuracy: $1\frac{7}{25}$

1.28 = 128.00%

Difficulty: Easy
Jerome - Chapter 01 #32
Learning Objective: 01-02 Convert fractions to their percent and decimal equivalents.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

33. The following fraction has a terminating decimal equivalent form. Express its decimal and percent equivalent forms to five-figure accuracy: $\frac{25}{1000}$

0.025 = 2.5000%

Difficulty: Easy
Jerome - Chapter 01 #33
Learning Objective: 01-02 Convert fractions to their percent and decimal equivalents.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

34. The following fraction has a terminating decimal equivalent form. Express its decimal and percent equivalent forms to five-figure accuracy: $\frac{1000}{25}$

40 = 4000.0%

Difficulty: Easy
Jerome - Chapter 01 #34
Learning Objective: 01-02 Convert fractions to their percent and decimal equivalents.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

35. The following mixed number has a terminating decimal equivalent form. Express its decimal and percent equivalent forms to five-figure accuracy: $2\frac{2}{100}$

2.02 = 202.00%

Difficulty: Easy
Jerome - Chapter 01 #35
Learning Objective: 01-02 Convert fractions to their percent and decimal equivalents.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

36. The following mixed number has a terminating decimal equivalent form. Express its decimal and percent equivalent forms to five-figure accuracy: $-1\frac{11}{32}$

-1.34375 = -134.38%

Difficulty: Easy
Jerome - Chapter 01 #36
Learning Objective: 01-02 Convert fractions to their percent and decimal equivalents.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

37. The following fraction has a terminating decimal equivalent form. Express its decimal and percent equivalent forms to five-figure accuracy: $\frac{37.5}{50}$

.75 = 75.000%

Difficulty: Easy
Jerome - Chapter 01 #37
Learning Objective: 01-02 Convert fractions to their percent and decimal equivalents.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

38. The following fraction has a terminating decimal equivalent form. Express its decimal and percent equivalent forms to five-figure accuracy: $\frac{22.5}{-12}$

-1.875 = -187.5%

Difficulty: Easy
Jerome - Chapter 01 #38
Learning Objective: 01-02 Convert fractions to their percent and decimal equivalents.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

39. The following fraction has a repeating decimal equivalent form. Express the decimal and percent equivalent form in the repeating decimal notation. Show just the minimum number of decimal places needed to display the repeating digit or group of digits. $\frac{5}{6}$

0.8 $\overline{3}$ = 83. $\overline{3}$ %

Difficulty: Easy
Jerome - Chapter 01 #39
Learning Objective: 01-02 Convert fractions to their percent and decimal equivalents.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

40. The following fraction has a repeating decimal equivalent form. Express the decimal and percent equivalent form in the repeating decimal notation. Show just the minimum number of decimal places needed to display the repeating digit or group of digits. $-\frac{8}{3}$

-2. $\overline{6}$ = -266. $\overline{6}$ %

Difficulty: Easy
Jerome - Chapter 01 #40
Learning Objective: 01-02 Convert fractions to their percent and decimal equivalents.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

41. The following mixed number has a repeating decimal equivalent form. Express the decimal and percent equivalent form in the repeating decimal notation. Show just the minimum number of decimal places needed to display the repeating digit or group of digits. $7\frac{7}{9}$

7. $\overline{7}$ = 777. $\overline{7}$ %

Difficulty: Easy
Jerome - Chapter 01 #41
Learning Objective: 01-02 Convert fractions to their percent and decimal equivalents.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

42. The following mixed number has a repeating decimal equivalent form. Express the decimal and percent equivalent form in the repeating decimal notation. Show just the minimum number of decimal places needed to display the repeating digit or group of digits. $1\frac{1}{11}$

1. $\overline{09}$ = 109. $\overline{09}$ %

Difficulty: Easy
Jerome - Chapter 01 #42
Learning Objective: 01-02 Convert fractions to their percent and decimal equivalents.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

43. The following fraction has a repeating decimal equivalent form. Express the decimal and percent equivalent form in the repeating decimal notation. Show just the minimum number of decimal places needed to display the repeating digit or group of digits. $\frac{10}{9}$

1. $\bar{1}$ = 111. $\bar{1}$ %

Difficulty: Easy
Jerome - Chapter 01 #43
Learning Objective: 01-02 Convert fractions to their percent and decimal equivalents.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

44. The following fraction has a repeating decimal equivalent form. Express the decimal and percent equivalent form in the repeating decimal notation. Show just the minimum number of decimal places needed to display the repeating digit or group of digits. $\frac{-4}{900}$

-0.00 $\overline{4}$ = -0. $\overline{4}$ %

Difficulty: Easy
Jerome - Chapter 01 #44
Learning Objective: 01-02 Convert fractions to their percent and decimal equivalents.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

45. The following fraction has a repeating decimal equivalent form. Express the decimal and percent equivalent form in the repeating decimal notation. Show just the minimum number of decimal places needed to display the repeating digit or group of digits. $-\frac{7}{270}$

-0.0 $\overline{259}$ = -2.59 $\overline{259}$ %

Difficulty: Easy
Jerome - Chapter 01 #45
Learning Objective: 01-02 Convert fractions to their percent and decimal equivalents.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

46. The following fraction has a repeating decimal equivalent form. Express the decimal and percent equivalent form in the repeating decimal notation. Show just the minimum number of decimal places needed to display the repeating digit or group of digits. $\frac{37}{27}$

1. $\overline{370}$ = 137. $\overline{037}$ %

Difficulty: Easy
Jerome - Chapter 01 #46
Learning Objective: 01-02 Convert fractions to their percent and decimal equivalents.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

47. Round the following to four-figure accuracy: 11.3845

11.38

Difficulty: Easy
Jerome - Chapter 01 #47
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

48. Round the following to four-figure accuracy: 9.6455

9.646

Difficulty: Easy

Jerome - Chapter 01 #48
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

49. Round the following to four-figure accuracy: 0.5545454

0.5545

Difficulty: Easy
Jerome - Chapter 01 #49
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

50. Round the following to four-figure accuracy: 1000.49

1000

Difficulty: Easy
Jerome - Chapter 01 #50
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

51. Round the following to four-figure accuracy: 1.0023456

1.002

Difficulty: Easy

Jerome - Chapter 01 #51
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

52. Round the following to four-figure accuracy: 0.030405

0.03041

Difficulty: Easy
Jerome - Chapter 01 #52
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

53. Round the following to four-figure accuracy: 40.09515

40.10

Difficulty: Easy
Jerome - Chapter 01 #53
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

54. Round the following to four-figure accuracy: 0.0090909

0.009091

Difficulty: Easy

Jerome - Chapter 01 #54
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

55. Convert the following fraction to its decimal equivalent and percent equivalent values, rounded to five figures: $\frac{1}{6}$

0.16667 = 16.667%

Difficulty: Easy
Jerome - Chapter 01 #55
Learning Objective: 01-02 Convert fractions to their percent and decimal equivalents.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

56. Convert the following fraction to its decimal equivalent and percent equivalent values, rounded to five figures: $\frac{7}{6}$

1.1667 = 116.67%

Difficulty: Easy
Jerome - Chapter 01 #56
Learning Objective: 01-02 Convert fractions to their percent and decimal equivalents.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

57. Convert the following fraction to its decimal equivalent and percent equivalent values, rounded to five figures: $\frac{1}{60}$

0.016667 = 1.6667%

Difficulty: Easy
Jerome - Chapter 01 #57
Learning Objective: 01-02 Convert fractions to their percent and decimal equivalents.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

58. Convert the following mixed number to its decimal equivalent and percent equivalent values, rounded to five figures: $2\frac{5}{9}$

2.5556 = 255.56%

Difficulty: Easy
Jerome - Chapter 01 #58
Learning Objective: 01-02 Convert fractions to their percent and decimal equivalents.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

59. Convert the following fraction to its decimal equivalent and percent equivalent values, rounded to five figures: $\frac{250}{365}$

0.68493 = 68.493%

Difficulty: Easy
Jerome - Chapter 01 #59
Learning Objective: 01-02 Convert fractions to their percent and decimal equivalents.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

60. Convert the following fraction to its decimal equivalent and percent equivalent values, rounded to five figures: $\frac{15}{365}$

0.041096 = 4.1096%

Difficulty: Easy
Jerome - Chapter 01 #60
Learning Objective: 01-02 Convert fractions to their percent and decimal equivalents.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

61. Convert the following fraction to its decimal equivalent and percent equivalent values, rounded to five figures: $\frac{0.11}{12}$

0.0091667 = 0.91667%

Difficulty: Easy
Jerome - Chapter 01 #61
Learning Objective: 01-02 Convert fractions to their percent and decimal equivalents.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

62. Convert the following fraction to its decimal equivalent and percent equivalent values, rounded to five figures: $\frac{0.095}{12}$

0.0079167 = 0.79167%

Difficulty: Easy
Jerome - Chapter 01 #62
Learning Objective: 01-02 Convert fractions to their percent and decimal equivalents.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

63. $\$92\left(1+0.095\times\frac{112}{365}\right)$

Evaluate the following accurate to the nearest cent:

$94.68

Difficulty: Easy
Jerome - Chapter 01 #63
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

64. $\$100\left(1+0.11\times\frac{5}{12}\right)$

Evaluate the following accurate to the nearest cent:

$104.58

Difficulty: Easy
Jerome - Chapter 01 #64
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

65. Evaluate the following accurate to the nearest cent: $\$454.76\left(1-0.105\times\frac{11}{12}\right)$

$410.99

Difficulty: Easy
Jerome - Chapter 01 #65
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

66. Evaluate the following accurate to the nearest cent: $\frac{\$790.84}{1+0.13\times\frac{311}{365}}$

$711.98

Difficulty: Easy
Jerome - Chapter 01 #66
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

67. Evaluate the following accurate to the nearest cent: $\frac{\$3490}{1+0.125\times\frac{91}{365}}$

$3384.52

Difficulty: Easy
Jerome - Chapter 01 #67
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

68. Evaluate the following accurate to the nearest cent: $\frac{\$10,000}{1-0.10\times\frac{182}{365}}$

$10,524.80

Difficulty: Easy
Jerome - Chapter 01 #68
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

69. $\$650\left(1+\frac{0.105}{2}\right)^2$

Evaluate the following accurate to the nearest cent:

$720.04

Difficulty: Easy
Jerome - Chapter 01 #69
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

70. $\$950.75\left(1-\frac{0.095}{4}\right)^2$

Evaluate the following accurate to the nearest cent:

$906.13

Difficulty: Easy
Jerome - Chapter 01 #70
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

71. Evaluate the following accurate to the nearest cent: $\frac{\$15{,}400}{\left(1+\frac{0.13}{12}\right)^6}$

$14,435.88

Difficulty: Easy
Jerome - Chapter 01 #71
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

72. Evaluate the following accurate to the nearest cent: $\frac{\$550}{\left(1+\frac{0.115}{2}\right)^4}$

$439.79

Difficulty: Easy
Jerome - Chapter 01 #72
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

73. What is 33 $\frac{1}{3}\%$ of $1527?

$509.00

Difficulty: Easy
Jerome - Chapter 01 #73
Learning Objective: 01-04 Perform calculations using fractions; decimals; and percents.
Source: Student text
Topic: Basic Mathematics
Type: Word

74. What is 2.75% of $2.75?

$0.08

Difficulty: Easy
Jerome - Chapter 01 #74
Learning Objective: 01-04 Perform calculations using fractions; decimals; and percents.
Source: Student text
Topic: Basic Mathematics
Type: Word

75. What amount is 250% of $25?

$62.50

Difficulty: Easy
Jerome - Chapter 01 #75
Learning Objective: 01-04 Perform calculations using fractions; decimals; and percents.
Source: Student text
Topic: Basic Mathematics
Type: Word

76. 0.025% of $200 is what amount?

$0.05

Difficulty: Easy
Jerome - Chapter 01 #76
Learning Objective: 01-04 Perform calculations using fractions; decimals; and percents.
Source: Student text
Topic: Basic Mathematics
Type: Word

77. How much is $\frac{1}{2}\%$ of $30?

$0.15

Difficulty: Easy
Jerome - Chapter 01 #77
Learning Objective: 01-04 Perform calculations using fractions; decimals; and percents.
Source: Student text
Topic: Basic Mathematics
Type: Word

78. Bethany and Irwin estimate their total cost for a vacation in Cuba to be $14,775. If 53% of this cost is for flights and accommodations and 42% is for meals, how much money will they be able to spend on entertainment?

$738.75

Difficulty: Medium
Jerome - Chapter 01 #78

Learning Objective: 01-04 Perform calculations using fractions; decimals; and percents.
Source: Student text
Topic: Basic Mathematics
Type: Word

79. In the month of July, a convenience store had total sales of $102,300 from its gas pumps and other in-store products. If HST is 13% of sales, how much HST was collected on the in-store products if these sales represent 36% of total sales?

$4,787.64

Difficulty: Medium
Jerome - Chapter 01 #79
Learning Objective: 01-04 Perform calculations using fractions; decimals; and percents.
Source: Student text
Topic: Basic Mathematics
Type: Word

80. In a basketball game, the Langara College Falcons scored $54.\overline{54}\%$ of 33 shots from the 2-point zone, $46.\overline{6}\%$ of 15 attempts from the 3-point distance, and 79.3% of 29 free throws (1 point each). How many points did the Falcons score?

80

Difficulty: Medium
Jerome - Chapter 01 #80
Learning Objective: 01-04 Perform calculations using fractions; decimals; and percents.
Source: Student text
Topic: Basic Mathematics
Type: Word

81. $\dfrac{\$6600\left(1+0.085\times\frac{153}{365}\right)}{1+0.125\times\frac{82}{365}}$

Evaluate the following accurate to the nearest cent:

$6648.46

Difficulty: Medium
Jerome - Chapter 01 #81
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

82. $\dfrac{\$780\left(1+\frac{0.0825}{2}\right)^{5}}{\left(1+\frac{0.10}{12}\right)^{8}}$

Evaluate the following accurate to the nearest cent:

$893.38

Difficulty: Medium
Jerome - Chapter 01 #82
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

83. $\$1000\left[\frac{\left(1+\frac{0.09}{12}\right)^{7}-1}{\frac{0.09}{12}}\right]$

Evaluate the following accurate to the nearest cent:

$7159.48

Difficulty: Medium
Jerome - Chapter 01 #83
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

84. $\frac{\$350}{\frac{0.0975}{12}}\left[1-\frac{1}{\left(1+\frac{0.0975}{12}\right)^{5}}\right]$

Evaluate the following accurate to the nearest cent:

$1708.14

Difficulty: Medium
Jerome - Chapter 01 #84
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

85. $$\frac{\$9500}{\frac{\left(1+\frac{0.075}{4}\right)^5-1}{\frac{0.075}{4}}}$$

Evaluate the following accurate to the nearest cent:

$1830.07

Difficulty: Medium
Jerome - Chapter 01 #85
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

86. Evaluate the following accurate to the nearest cent:

$$\$45\frac{\left[1-\frac{1}{\left(1+\frac{0.0837}{2}\right)^4}\right]}{\frac{0.0837}{2}}+\frac{\$1000}{\left(1+\frac{0.0837}{2}\right)^4}$$

$1011.38

Difficulty: Medium
Jerome - Chapter 01 #86
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Student text
Topic: Basic Mathematics
Type: Word

87. The Calgary Flames hockey team announced that its season's ticket sales represent 67.50% of the Scotiabank Saddledome's seating capacity of 19,289 seats. Rounded to the nearest 100, how many seats were not sold to season's ticket holders?

6300 (rounded to the nearest 100)

Difficulty: Medium
Jerome - Chapter 01 #87
Learning Objective: 01-04 Perform calculations using fractions; decimals; and percents.
Source: Student text
Topic: Basic Mathematics
Type: Word

88. The Royal Canadian Mint sells one troy ounce (31.16 grams) platinum collector coins of 99.95% purity. How many milligrams of impurities are in a single coin?

15.58 mg

Difficulty: Medium
Jerome - Chapter 01 #88
Learning Objective: 01-04 Perform calculations using fractions; decimals; and percents.
Source: Student text
Topic: Basic Mathematics
Type: Word

89. Stan is a real estate salesperson. He receives 60% of the 4.8% commission that the real estate agency charges on sales. If his sales for the past year were $5,225,000, what was the dollar value of his commission?

$150,480

Difficulty: Medium
Jerome - Chapter 01 #89
Learning Objective: 01-04 Perform calculations using fractions; decimals; and percents.
Source: Student text
Topic: Basic Mathematics
Type: Word

90. The maximum amount an individual can contribute to her Registered Retirement Savings Plan (RRSP) for a year is set from time to time by the Regulations of the Income Tax Act. For the year 2013, the maximum contribution was the lesser of $23,820 or 18% of the individual's "earned income" during 2012. What was the maximum RRSP amount that could be contributed in 2013 based on an income of $128,500 in 2012?

$23,130

Difficulty: Hard
Jerome - Chapter 01 #90
Learning Objective: 01-04 Perform calculations using fractions; decimals; and percents.
Source: Student text
Topic: Basic Mathematics
Type: Word

91. Aletta's annual salary of $58,800 is paid weekly. She is paid at time and a half for any overtime beyond her regular workweek of 35 hours. What is her gross pay for a week in which she works 39 hours?

$1324.65

Difficulty: Easy
Jerome - Chapter 01 #91
Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.
Source: Student text
Topic: Basic Mathematics
Type: Word

92. Lucille receives an annual salary of $37,500 based on a 37.5-hour workweek. What are her gross earnings for a two-week pay period in which she works 9 hours of overtime at 1½ times her regular rate of pay?

$1701.92

Difficulty: Easy
Jerome - Chapter 01 #92
Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.
Source: Student text
Topic: Basic Mathematics
Type: Word

93. Hasad is paid an annual salary of $54,600 based on a 40-hour workweek. What is his gross pay for a biweekly pay period if he works 43 hours in the first week and 46.5 hours in the second week? Overtime is paid at time and a half. Assume there are exactly 52 weeks in a year.

$2474.06

Difficulty: Easy
Jerome - Chapter 01 #93
Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.
Source: Student text
Topic: Basic Mathematics
Type: Word

94. Ross's compensation is to be changed from an hourly rate of $31.50 for a 40-hour week to a salary paid semimonthly. What should he be paid semimonthly in order for his annual earnings to remain the same?

$2730.00

Difficulty: Easy
Jerome - Chapter 01 #94
Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.
Source: Student text
Topic: Basic Mathematics
Type: Word

95. Allison's regular hourly rate of pay is $17.70. She is paid time and a half for all work on weekends and for any time over 7.5 hours on weekdays. Calculate her gross earnings for a week in which she works 4.5, 0, 7.5, 8.5, 6, 6, and 9 hours on Saturday to Friday, respectively.

$796.50

Difficulty: Easy
Jerome - Chapter 01 #95
Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.
Source: Student text
Topic: Basic Mathematics
Type: Word

96. Sam is paid $34.50 per hour as a power plant engineer. He is paid 1½ times the regular rate for all time exceeding 8 hours in a day or 40 hours in a week. Statutory holidays worked are paid at double time (in addition to holiday pay). What were his gross earnings for a week in which he clocked 8, 9.5, 8, 8, 10, 0, and 8 hours on Saturday to Friday, respectively, where Monday was a statutory holiday?

$2389.13

Difficulty: Easy
Jerome - Chapter 01 #96
Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.
Source: Student text
Topic: Basic Mathematics
Type: Word

97. Mary sews for a clothing manufacturer. She is paid $7.50 per hour plus a piece rate that depends on the type of garment in production. The current production run is men's shirts, for which she is paid $3.00 for each unit exceeding her quota of 20 shirts in an 8-hour shift. What will be her total pay for a regular workweek in which her output on successive days was 24, 26, 27, 28, and 30 shirts?

$405.00

Difficulty: Easy
Jerome - Chapter 01 #97
Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.
Source: Student text
Topic: Basic Mathematics
Type: Word

98. Herb packs fish in 500-g cans on a processing line. He is paid $8.25 per hour plus $0.18 per kilogram for production in excess of 500 kg in a 7.5-hour shift. How much will he earn per day if he packs 250 cans per hour?

$140.63

Difficulty: Medium
Jerome - Chapter 01 #98
Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.
Source: Student text
Topic: Basic Mathematics
Type: Word

99. Svetlana is an independent insurance broker placing various clients with any of several insurance companies. On homeowner insurance policies, each month she receives:
$20 for each renewal of an existing policy;
$35 for each policy placed with a new client; and
5.5% of the annual premiums on all policies (new and renewed) written in the month.
In October, she placed 37 new-client policies representing $14,375 in annual premiums and 126 policy renewals representing $47,880 in annual premiums. What amount did Svetlana earn in October?

$7239.03

Difficulty: Medium
Jerome - Chapter 01 #99
Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.
Source: Student text
Topic: Basic Mathematics
Type: Word

100. Hillary sells cosmetics from her part-time home-based business. She receives a straight commission of 21% from her supplier. At the year-end, she also receives a 7% bonus on sales exceeding her annual quota of $100,000. What will her gross annual earnings be for a year in which her average monthly sales are $11,000?

$29,960

Difficulty: Medium
Jerome - Chapter 01 #100
Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.
Source: Student text
Topic: Basic Mathematics
Type: Word

101. Manfred is considering job offers of the same type of sales position from two retailers with similar product lines:

Supreme Audio & Video is offering a base salary of $2000 per month plus a 4% commission rate on sales;
Buy-Right Electronics will pay a base salary of $1500 per month plus commission rates of 3% on the first $25,000 of sales and 6% on additional sales in a month.
Based on past experience in similar sales positions, Manfred is confident he can attain average monthly sales of $55,000. At this level of sales, what would be his average gross earnings per month from each retailer?

$4200 & $4050

Difficulty: Medium
Jerome - Chapter 01 #101
Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.
Source: Student text
Topic: Basic Mathematics
Type: Word

102. A shoe salesman is paid the greater of $600 per week or 11% of sales. a) What will be his earnings for a week in which sales are $5636? b) At what volume of sales per week will he start to earn more from the commission based compensation?

a) $619.96 and b) $5454.55 per week

Difficulty: Hard
Jerome - Chapter 01 #102
Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.
Source: Student text
Topic: Basic Mathematics
Type: Word

103. Tom sells mutual funds on a graduated commission structure. He receives 3.3% on the first $50,000 of sales in a month, 4.4% on the next $50,000, and 5.5% on all further sales. What are his gross earnings for a month in which he sells $140,000 worth of mutual funds?

$6050.00

Difficulty: Medium
Jerome - Chapter 01 #103
Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.
Source: Student text
Topic: Basic Mathematics
Type: Word

104. Sharon is a manufacturer's representative selling office furniture directly to businesses. She receives a monthly salary of $2000 plus a 2.2% commission on sales exceeding her quota of $150,000 per month.

a) What are her earnings for a month in which she has $227,000 in sales?
b) If her average monthly sales are $235,000, what straight commission rate would generate the same average monthly earnings as her current basis of remuneration?

a) $3694.00 and b) 1.6468%

Difficulty: Hard
Jerome - Chapter 01 #104
Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.
Source: Student text
Topic: Basic Mathematics
Type: Word

105. Julio is paid on a graduated commission scale of 5% on the first $20,000 of sales in a month, 7.5% on the next $20,000, and 10% on all additional sales.

a) What will he be paid for a month in which his sales are $54,880?
b) What single commission rate on all sales would result in the same earnings for the month?

a) $3988.00 and b) 7.2668%

Difficulty: Hard
Jerome - Chapter 01 #105
Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.
Source: Student text
Topic: Basic Mathematics
Type: Word

106. Karen works in a retail computer store. She receives a weekly base salary of $300 plus a commission of 3% of sales exceeding her quota of $20,000 per week. What were her sales for a week in which she earned $630.38?

$31,012.67

Difficulty: Hard
Jerome - Chapter 01 #106
Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.
Source: Student text
Topic: Basic Mathematics
Type: Word

107. Jason's gross pay for August was $3296.97 on sales totalling $151,342. If his base salary is $1500 per month, what is his rate of commission on sales exceeding his monthly quota of $100,000?

3.50%

Difficulty: Hard
Jerome - Chapter 01 #107
Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.
Source: Student text
Topic: Basic Mathematics
Type: Word

108. Daniella's gross monthly earnings are based on commission rates of 4% of the first $40,000 of sales, 5% of the next $50,000, and 6% of all additional sales for the month. What was her sales total for a month in which she was paid $5350?

$110,833.33

Difficulty: Hard
Jerome - Chapter 01 #108
Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.
Source: Student text
Topic: Basic Mathematics
Type: Word

109. Trevor earns a base monthly salary of $2000 plus a commission of 3% on sales exceeding his monthly quota of $25,000. He receives a further 3% bonus on sales in excess of $50,000. What must his sales be in order to gross $4000 per month?

$70,833.33

Difficulty: Hard
Jerome - Chapter 01 #109
Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.
Source: Student text
Topic: Basic Mathematics
Type: Word

110. In what circumstance should you calculate a weighted average instead of a simple average?

You should calculate a weighted average when some of the values being averaged are more important or occur more frequently than other values.

Difficulty: Easy
Jerome - Chapter 01 #110
Learning Objective: 01-06 Calculate the simple average or weighted average (as appropriate) of a set of values.
Source: Student text
Topic: Basic Mathematics
Type: Concept

111. In what circumstances will the weighted average be equal to the simple average?

The weighted average will equal the simple average when the items being averaged all have the same weighting factor. In other words, each of the values being averaged has the same importance, or occurs the same number of times.

Difficulty: Easy
Jerome - Chapter 01 #111
Learning Objective: 01-06 Calculate the simple average or weighted average (as appropriate) of a set of values.
Source: Student text
Topic: Basic Mathematics
Type: Concept

112. How must you allocate your money among a number of investments so that your portfolio's overall rate of return will be the same as the simple average of the rates of return on individual investments?

If you invest the same amount of money in each investment, each rate of return has the same importance. The portfolio's rate of return will then equal the simple average of the individual rates of return.

Difficulty: Medium
Jerome - Chapter 01 #112
Learning Objective: 01-06 Calculate the simple average or weighted average (as appropriate) of a set of values.
Source: Student text
Topic: Basic Mathematics
Type: Concept

113. A survey of 254 randomly chosen residences in a city revealed that 4 had four television sets, 22 had three sets, 83 had two sets, 140 had one set, and 5 had no TV set at all. Based on the survey, what would you estimate to be the average number of TV sets per household?

1.53

Difficulty: Easy
Jerome - Chapter 01 #113
Learning Objective: 01-06 Calculate the simple average or weighted average (as appropriate) of a set of values.
Source: Student text
Topic: Basic Mathematics
Type: Word

114. An investor accumulated 1800 shares of Corel Corporation over a period of several months. She bought 1000 shares at $15.63, 500 shares at $19.00, and 300 shares at $21.75. What was her average cost per share? (Note: Investors who purchase shares in the same company at more than one price must eventually do this calculation. Tax rules require that the capital gain or loss on the sale of any of the shares be calculated using the weighted-average price paid for all of the shares rather than the particular price paid for the shares actually sold.)

$17.59

Difficulty: Easy
Jerome - Chapter 01 #114
Learning Objective: 01-06 Calculate the simple average or weighted average (as appropriate) of a set of values.
Source: Student text
Topic: Basic Mathematics
Type: Word

115. A hockey goalie's "goals against average" (GAA) is the average number of goals scored against him per (complete) game. In his first 20 games in goal, O. U. Sieve had one shutout, two 1-goal games, three 2-goal games, four 3-goal games, seven 4-goal games, two 6-goal games, and one 10-goal disaster. Calculate his GAA.

3.50

Difficulty: Easy
Jerome - Chapter 01 #115
Learning Objective: 01-06 Calculate the simple average or weighted average (as appropriate) of a set of values.
Source: Student text
Topic: Basic Mathematics
Type: Word

116. Serge's graduated commission scale pays him 3% on his first $30,000 in sales, 4% on the next $20,000, and 6% on all additional sales in a month. What will be his average commission rate on sales for a month totalling a) $60,000, b) $100,000?

a) 3.83% and b) 4.70%

Difficulty: Easy
Jerome - Chapter 01 #116
Learning Objective: 01-06 Calculate the simple average or weighted average (as appropriate) of a set of values.
Source: Student text
Topic: Basic Mathematics
Type: Word

117. The RBC Royal Bank offers an "add-on option" on fixed-rate mortgages. The option allows the customer to borrow additional funds partway through the term of the mortgage. The interest rate charged on the combined mortgage debt becomes the weighted average of the old rate on the former balance and the current competitive rate on new mortgage financing. Suppose Herschel and Julie had a mortgage balance of $37,500 at 8%, when they borrowed another $20,000 at 7%. What interest rate will they be charged by the RBC Royal Bank on the new consolidated balance?

7.65%

Difficulty: Easy
Jerome - Chapter 01 #117
Learning Objective: 01-06 Calculate the simple average or weighted average (as appropriate) of a set of values.
Source: Student text
Topic: Basic Mathematics
Type: Word

118. Margot's grades and course credits in her first semester at college are listed below.

Grade	C+	B-	B+	C-	B	C
Credits	5	3	4	2	3	4

Using the table in Example 1.5D for converting Letter Grades to grade Point Value, calculate Margot's grade point average for the semester.

2.53

Difficulty: Easy
Jerome - Chapter 01 #118
Learning Objective: 01-06 Calculate the simple average or weighted average (as appropriate) of a set of values.
Source: Student text
Topic: Basic Mathematics
Type: Word

119. The distribution of scores obtained by 30 students on a quiz marked out of 10 is listed below.

Score	10	9	8	7	6	5	4	3	2	1
Number of Students	2	6	9	7	3	2	0	1	0	0

What was the average score on the test?

7.53

Difficulty: Easy
Jerome - Chapter 01 #119
Learning Objective: 01-06 Calculate the simple average or weighted average (as appropriate) of a set of values.
Source: Student text
Topic: Basic Mathematics
Type: Word

120. Alihan's transcript shows the following academic record for four semesters of part-time college studies. Calculate his cumulative GPA at the end of his fourth semester.

Semester	Credits	GPA
I	6	3.5
II	9	3.0
III	12	2.75
IV	7.5	3.2

3.04

Difficulty: Easy
Jerome - Chapter 01 #120
Learning Objective: 01-06 Calculate the simple average or weighted average (as appropriate) of a set of values.
Source: Student text
Topic: Basic Mathematics
Type: Word

121. The "age" of an account receivable is the length of time that it has been outstanding. At the end of October, a firm has $12,570 in receivables that are 30 days "old," $6,850 that are 60 days "old," and $1325 that are 90 days "old." What is the average "age" of its accounts receivable at the end of October?

43.74 days

Difficulty: Medium
Jerome - Chapter 01 #121
Learning Objective: 01-06 Calculate the simple average or weighted average (as appropriate) of a set of values.
Source: Student text
Topic: Basic Mathematics
Type: Word

122. One year ago, Sook-Yin allocated the funds in her portfolio among five securities in the proportions listed below. The rate of (total) return on each security for the year is given in the third column of the table.

Security	Portion invested	Rate of Return for the year
Company A Shares	15%	14%
Province A Bonds	20	10
Company C Shares	10	-13
Units in Fund D	35	12
Company E Shares	20	27

Calculate the rate of return for the entire portfolio.

12.40%

Difficulty: Medium
Jerome - Chapter 01 #122
Learning Objective: 01-06 Calculate the simple average or weighted average (as appropriate) of a set of values.
Source: Student text
Topic: Basic Mathematics
Type: Word

123. One of the methods permitted by Generally Accepted Accounting Principles for reporting the value of a firm's inventory is weighted-average inventory pricing. The Boswell Corporation began its fiscal year with an inventory of 156 units valued at $10.55 per unit. During the year it made the purchases listed in the following table.

Date	Units Purchased	Unit Cost
February 10	300	$10.86
June 3	1000	10.47
August 23	500	10.97

At the end of the year, 239 units remained in inventory. Determine: a) The weighted-average cost of the units purchased during the year. b) The weighted-average cost of the beginning inventory and all units purchased during the year. c) The value of the ending inventory based on the weighted-average cost calculated in b.

a) $10.67 and b) $10.66 and c) $2547.74

Difficulty: Medium
Jerome - Chapter 01 #123
Learning Objective: 01-06 Calculate the simple average or weighted average (as appropriate) of a set of values.
Source: Student text
Topic: Basic Mathematics
Type: Word

124. Suppose a group of consumers spends 30% of its disposable income on food, 20% on clothing, and 50% on rent. If over the course of a year the price of food rose 10%, the price of clothing dropped 5%, and rent rose 15%, what was the average price increase experienced by these consumers?

9.50%

Difficulty: Medium
Jerome - Chapter 01 #124
Learning Objective: 01-06 Calculate the simple average or weighted average (as appropriate) of a set of values.
Source: Student text
Topic: Basic Mathematics
Type: Word

125. A restaurant owner set her menu prices at a predetermined percentage of her input costs for food, ingredients, and beverages. The prices as a percentage of these costs for various menu categories are presented in the second column of the table. The third column presents the

Menu category	Menu price as a percentage of costs	Percentage of sales revenue
Appetizers	300%	10%
Entrees	200%	50%
Desserts	225%	25%
Beverages	250%	15%

breakdown of the restaurant's overall revenue from the four men categories. On average, what are menu prices as a percentage of the basic input costs? Overall, what are the input costs as a percentage of revenue?

226.25% of input costs; 44.20% of revenue

Difficulty: Hard
Jerome - Chapter 01 #125

Learning Objective: 01-06 Calculate the simple average or weighted average (as appropriate) of a set of values.
Source: Student text
Topic: Basic Mathematics
Type: Word

126. The balance on Nucorp's revolving loan began the month at $35,000. On the eighth of the month another $10,000 was borrowed. Nucorp was able to repay $20,000 on the 25th of the 31-day month. What was the average balance on the loan during the month? (Use each day's closing balance as the loan balance for the day.)

$38,225.81

Difficulty: Hard
Jerome - Chapter 01 #126
Learning Objective: 01-06 Calculate the simple average or weighted average (as appropriate) of a set of values.
Source: Student text
Topic: Basic Mathematics
Type: Word

127. A seasonal manufacturing operation began the calendar year with 14 employees. During the year, employees were taken on or laid off on various dates as presented in the table below.

Date	Employee changes
April 1	7 hired
May 1	8 hired
June 1	11 hired
Sept. 1	6 laid off
Oct. 1	14 laid off

What was the average number of employees on the payroll during the calendar year? (Assume that each month has the same length.)

25.5

Difficulty: Hard
Jerome - Chapter 01 #127
Learning Objective: 01-06 Calculate the simple average or weighted average (as appropriate) of a set of values.
Source: Student text
Topic: Basic Mathematics
Type: Word

128. Marcel must temporarily invest extra money in his retail business every fall to purchase additional inventory for the Christmas season. On September 1 he already had a total of $57,000 invested in his business. Subsequently, he invested or withdrew cash on various dates as shown in the following table.

Date	Additional injection or withdrawal
Oct. 1	$15,000 injection
Nov. 1	$27,000 injection
Feb. 1	$23,000 withdrawal
March 1	$13,000 withdrawal
May 1	$6000 withdrawal

What was the average cumulative investment in the business during the period from September 1 to August 31? (Assume that each month has the same length.)

$71,333.33

Difficulty: Hard
Jerome - Chapter 01 #128
Learning Objective: 01-06 Calculate the simple average or weighted average (as appropriate) of a set of values.
Source: Student text
Topic: Basic Mathematics
Type: Word

129. When a company calculates its earnings per common share for its financial statements, it uses the weighted-average number of common shares outstanding during the year. Enertec Corp. began its fiscal year (January 1 to December 31) with 5 million common shares outstanding. Additional common shares were issued during the year as indicated in the following table.

Date	Event	Additional shares issued
March 1	New public offering	1,000,000
June 1	Employees and officers exercise stock options	500,000
Nov. 1	Convertible bonds exchanged for shares	750,000

What was average number of common shares outstanding during the year? (Assume that each month has the same length.)

6,250,000

Difficulty: Medium
Jerome - Chapter 01 #129
Learning Objective: 01-06 Calculate the simple average or weighted average (as appropriate) of a set of values.
Source: Student text
Topic: Basic Mathematics
Type: Word

130. Lien, the proprietor of a grocery store, prepares her Deluxe Nut Combo by mixing various ingredients she buys in bulk. The second column of the following table presents the amount of each ingredient Lien uses in making a batch of the Combo mix. In order to set the retail price of the Deluxe Nut Combo at 150% of her cost, Lien must determine her cost based on the average wholesale cost of the ingredients given in the third column.

Ingredient	Amount	Cost per kg
Peanuts	5 kg	$2.95
Cashews	2 kg	$9.50
Almonds	1 kg	$11.50
Sunflower seeds	500 g	$2.75
Raisins	400 g	$3.60
Smarties	300 g	$6.40

a. What is Lien's average cost per 100 g of her Deluxe Nut Combo?

b. What is her retail price per 100 g?

a) $0.5433 per 100g b) $0.81 per 100g

Difficulty: Medium

Jerome - Chapter 01 #130

Learning Objective: 01-06 Calculate the simple average or weighted average (as appropriate) of a set of values.

Source: Student text

Topic: Basic Mathematics

Type: Word

131. Johnston Distributing, Inc. files quarterly GST returns. The purchases on which it paid the GST and the sales on which it collected the GST for the last four quarters were as follows:

Quarter	Purchases	Sales
1	$596,476	$751,841
2	967,679	627,374
3	823,268	1,231,916
4	829,804	994,622

Calculate the GST remittance or refund due for each quarter. (GST = 6%)

Q1) $9321.90; Q2) $(20,418.30); Q3) $24,518.88; and Q4) $9889.08

Difficulty: Easy

Jerome - Chapter 01 #131

Learning Objective: 01-07 Perform basic calculations for the Goods and Services Tax; Harmonized Sales Tax; provincial sales tax; and real property tax.

Source: Student text

Topic: Basic Mathematics

Type: Word

132. Sawchuk's Home and Garden Centre files monthly GST returns. The purchases on which it paid the GST and the sales on which it collected the GST for the last four months were as follows:

Month	Purchases	Sales
March	$135,650	$57,890
April	213,425	205,170
May	176,730	313,245
June	153,715	268,590

Calculate the GST remittance or refund due for each month. (GST = 6%)

March) $(4665.60); April) $(495.30); May) $8190.90; and June) $6892.50

Difficulty: Easy
Jerome - Chapter 01 #132
Learning Objective: 01-07 Perform basic calculations for the Goods and Services Tax; Harmonized Sales Tax; provincial sales tax; and real property tax.
Source: Student text
Topic: Basic Mathematics
Type: Word

133. Calculate the total amount, including both GST and PST, that an individual will pay for a car priced at $39,500 in: a) Alberta b) Saskatchewan c) Quebec.

a) $41,475.00; b) $43,450.00; and c) $45,415.13

Difficulty: Medium
Jerome - Chapter 01 #133
Learning Objective: 01-07 Perform basic calculations for the Goods and Services Tax; Harmonized Sales Tax; provincial sales tax; and real property tax.
Source: Student text
Topic: Basic Mathematics
Type: Word

134. How much more will a consumer pay for an item listed at $1000 (pretax) in Prince Edward Island than in Manitoba?

$10.00 more

Difficulty: Medium
Jerome - Chapter 01 #134
Learning Objective: 01-07 Perform basic calculations for the Goods and Services Tax; Harmonized Sales Tax; provincial sales tax; and real property tax.
Source: Student text
Topic: Basic Mathematics
Type: Word

135. Angie's Flower Shop charges 13% Harmonized Sales Tax (HST) on all purchases.

a) How much HST will she report for a plant priced at $39.45?
b) As of February 4, 2013, if a consumer pays cash and cannot give the exact change, the total amount of the transaction must be rounded up or down. How much change will be given if the above purchase is paid for with a $50 bill?

a. $5.13; b. $5.40

Difficulty: Medium
Jerome - Chapter 01 #135
Learning Objective: 01-07 Perform basic calculations for the Goods and Services Tax; Harmonized Sales Tax; provincial sales tax; and real property tax.
Source: Student text
Topic: Basic Mathematics
Type: Word

136. To attract shoppers, retailers occasionally advertise something like "Pay no hST!" Needless to say, neither the federal nor the provincial government is willing to forego its sales tax. In this situation, the retailer must calculate and remit the H as though the "ticket" price already includes these sales taxes. How much H must a retailer in New Brunswick report on a $495 item that he sells on a Pay-No-H basis? (Hint: What percentage is the HST of a H-inclusive price?)

11.50% of the HST-inclusive price; $56.93

Difficulty: Medium
Jerome - Chapter 01 #136
Learning Objective: 01-07 Perform basic calculations for the Goods and Services Tax; Harmonized Sales Tax; provincial sales tax; and real property tax.
Source: Student text
Topic: Basic Mathematics
Type: Word

137. What are the taxes on a property assessed at $227,000 if the mill rate is 16.8629?

$3827.88

Difficulty: Easy
Jerome - Chapter 01 #137
Learning Objective: 01-07 Perform basic calculations for the Goods and Services Tax; Harmonized Sales Tax; provincial sales tax; and real property tax.
Source: Student text
Topic: Basic Mathematics
Type: Word

138. a) Express a property tax increase of 0.1 mill in terms of dollars per $100 of assessed value?
b) If the mill rate increases by 0.1 mill, what is the dollar increase in property taxes on a $200,000 home?

a) $0.01 per $100 and b) $20.00

Difficulty: Medium
Jerome - Chapter 01 #138
Learning Objective: 01-07 Perform basic calculations for the Goods and Services Tax; Harmonized Sales Tax; provincial sales tax; and real property tax.
Source: Student text
Topic: Basic Mathematics
Type: Word

139. The assessment on a farm consists of $143,000 for the house and $467,000 for the land and buildings. A mill rate of 15.0294 applies to residences, and a rate of 4.6423 applies to agricultural land and buildings. What are the total property taxes payable on the farm?

$4317.16

Difficulty: Medium
Jerome - Chapter 01 #139
Learning Objective: 01-07 Perform basic calculations for the Goods and Services Tax; Harmonized Sales Tax; provincial sales tax; and real property tax.
Source: Student text
Topic: Basic Mathematics
Type: Word

140. The assessed value on a property increased from $285,000 last year to $298,000 in the current year. Last year's property tax rate was $1.56324 per $100 of assessed value. a) What will be the change in the property tax from last year if the new tax rate is set at $1.52193 per $100? b) What would the new tax rate have to be for the dollar amount of the property taxes to be unchanged?

a) $80.12 increase and b) $1.49504 per $100

Difficulty: Medium
Jerome - Chapter 01 #140
Learning Objective: 01-07 Perform basic calculations for the Goods and Services Tax; Harmonized Sales Tax; provincial sales tax; and real property tax.
Source: Student text
Topic: Basic Mathematics
Type: Word

141. The school board in a municipality will require an extra $2,430,000 for its operating budget next year. The current mill rate for the school tax component of property taxes is 7.1253. a) If the total of the assessed values of properties in the municipality remains at the current figure of $6.78 billion, at what value must next year's school mill rate be set? b) If the total of all assessed values rises by 5% over this year's aggregate assessment, at what value must next year's school mill rate be set?

a) 7.4837 and b) 7.1273

Difficulty: Medium
Jerome - Chapter 01 #141
Learning Objective: 01-07 Perform basic calculations for the Goods and Services Tax; Harmonized Sales Tax; provincial sales tax; and real property tax.
Source: Student text
Topic: Basic Mathematics
Type: Word

142. The total assessed value of property in Brockton has risen by $97 million from last year's figure of $1.563 billion. The property tax rate last year for city services was $0.94181 per $100 of assessed value. If the city's budget has increased by $750,000, what tax rate should it set for the current year?

$0.93196 per $100

Difficulty: Easy
Jerome - Chapter 01 #142
Learning Objective: 01-07 Perform basic calculations for the Goods and Services Tax; Harmonized Sales Tax; provincial sales tax; and real property tax.
Source: Student text
Topic: Basic Mathematics
Type: Word

143. Solve the following equation $\left(2^3-3\right)^2-20\div\left(2+2^3\right)$

23

Difficulty: Easy
Jerome - Chapter 01 #143
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Student text
Topic: Basic Mathematics
Type: Word

144. Solve the following equation $\left[4\left(2\times3^2-2^3\right)^2\div(10-4\times5)\right]$

-40

Difficulty: Easy
Jerome - Chapter 01 #144
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Student text
Topic: Basic Mathematics
Type: Word

145. Solve the following equation $\$213.85\left(1-0.095\times\frac{5}{12}\right)$

$205.39

Difficulty: Easy
Jerome - Chapter 01 #145
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Student text
Topic: Basic Mathematics
Type: Word

146. Solve the following equation $\frac{\$2315}{1+0.0825\times\frac{77}{365}}$

$2275.40

Difficulty: Easy
Jerome - Chapter 01 #146

Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Student text
Topic: Basic Mathematics
Type: Word

147. $\$325.75\left(1+\frac{0.105}{4}\right)^2$

Solve the following equation

$343.08

Difficulty: Easy
Jerome - Chapter 01 #147
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Student text
Topic: Basic Mathematics
Type: Word

148. $\frac{\$710}{\left(1+\frac{0.0925}{2}\right)^3}$

Solve the following equation

$619.94

Difficulty: Easy
Jerome - Chapter 01 #148
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Student text
Topic: Basic Mathematics
Type: Word

149. $\$885.75\left(1+0.0775\times\frac{231}{365}\right)-\frac{\$476.50}{1+0.0775\times\frac{49}{365}}$

Solve the following equation

$457.60

Difficulty: Easy
Jerome - Chapter 01 #149
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Student text
Topic: Basic Mathematics
Type: Word

150. $\$859\left(1+\frac{0.0825}{12}\right)^3+\frac{\$682}{\left(1+\frac{0.0825}{12}\right)^2}$

Solve the following equation

$1549.56

Difficulty: Medium
Jerome - Chapter 01 #150
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Student text
Topic: Basic Mathematics
Type: Word

151. Evaluate the following: $96-\left(6-4^2\right)\times 7-2$

164

Difficulty: Easy
Jerome - Chapter 01 #151

Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Student text
Topic: Basic Mathematics
Type: Word

152. Evaluate the following: $81 \div \left(5^2 - 16\right) - 4\left(2^3 - 13\right)$

29

Difficulty: Easy
Jerome - Chapter 01 #152
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Student text
Topic: Basic Mathematics
Type: Word

153. Evaluate the following: $\dfrac{\$827.69}{1 + 0.125 \times \frac{273}{365}} + \$531.49\left(1 + 0.125 \times \dfrac{41}{365}\right)$

$1295.88

Difficulty: Easy
Jerome - Chapter 01 #153
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Student text
Topic: Basic Mathematics
Type: Word

154. $\$550.45\left(1+0.0875\times\frac{195}{365}\right)-\frac{\$376.29}{1+0.0875\times\frac{99}{365}}$

Evaluate the following:

$208.62

Difficulty: Medium
Jerome - Chapter 01 #154
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Student text
Topic: Basic Mathematics
Type: Word

155. $\$1137\left(1+\frac{0.0975}{12}\right)^2+\frac{\$2643}{\left(1+\frac{0.0975}{12}\right)^3}$

Evaluate the following:

$3735.16

Difficulty: Medium
Jerome - Chapter 01 #155
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Student text
Topic: Basic Mathematics
Type: Word

156. What amount is 62% of $99?

$61.38

Difficulty: Easy
Jerome - Chapter 01 #156

Learning Objective: 01-04 Perform calculations using fractions; decimals; and percents.
Source: Student text
Topic: Basic Mathematics
Type: Word

157. What is 80% of $156.25?

$125.00

Difficulty: Easy
Jerome - Chapter 01 #157
Learning Objective: 01-04 Perform calculations using fractions; decimals; and percents.
Source: Student text
Topic: Basic Mathematics
Type: Word

158. ¾% of $133. $\overline{33}$ is what amount?

$1.00

Difficulty: Easy
Jerome - Chapter 01 #158
Learning Objective: 01-04 Perform calculations using fractions; decimals; and percents.
Source: Student text
Topic: Basic Mathematics
Type: Word

159. How many minutes is 12.5% in 2 hours?

15 minutes

Difficulty: Easy
Jerome - Chapter 01 #159

Learning Objective: 01-04 Perform calculations using fractions; decimals; and percents.
Source: Student text
Topic: Basic Mathematics
Type: Word

160. The profit forecast for the most recent fiscal quarter is $23,400. The actual profit is 90% of the forecast profit. What is the actual profit?

$21,600.00

Difficulty: Easy
Jerome - Chapter 01 #160
Learning Objective: 01-04 Perform calculations using fractions; decimals; and percents.
Source: Student text
Topic: Basic Mathematics
Type: Word

161. Renalda sold Westel stock that she purchased at $2.20 per share one year ago for a 35% gain. At what price did she sell the stock?

$2.97 per share

Difficulty: Easy
Jerome - Chapter 01 #161
Learning Objective: 01-04 Perform calculations using fractions; decimals; and percents.
Source: Student text
Topic: Basic Mathematics
Type: Word

162. Luther is paid an annual salary of $56,600 based on a 37½-hour workweek.

a) What is his equivalent hourly wage? (Assume that a year has exactly 52 weeks).
b) What would be his total remuneration for a bi-weekly pay period of that year if he worked 4.5 hours of overtime at time and a half?

a) $29.03 and b) $2372.85

Difficulty: Easy
Jerome - Chapter 01 #162
Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.
Source: Student text
Topic: Basic Mathematics
Type: Word

163. Istvan earns an annual salary of $61,000 as an executive with a provincial utility. He is paid biweekly. During a strike, he worked 33 hours more than the regular 75 hours for a two-week pay period. What was his gross pay for that period if the company agreed to pay 1.5 times his equivalent hourly rate for overtime? (Assume that a year has exactly 52 weeks.)

$3894.61

Difficulty: Medium
Jerome - Chapter 01 #163
Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.
Source: Student text
Topic: Basic Mathematics
Type: Word

164. Sonja is paid $42.50 per hour as a veterinarian. She is paid 1½ times the regular rate for all time exceeding 7½ hours in a day or 37½ hours per week. Work on a statutory holiday is paid at double time. What were her gross earnings for a week in which she worked 6, 0, 3, 7½, 9, 7½, and 8 hours on Saturday to Friday, respectively, and the Monday was a statutory holiday?

$2231.25

Difficulty: Medium
Jerome - Chapter 01 #164
Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.
Source: Student text
Topic: Basic Mathematics
Type: Word

165. Marion receives a monthly base salary of $1000. On the first $10,000 of sales above her monthly quota of $20,000, she is paid a commission of 8%. On any additional sales, the commission rate is 10%. What were her gross earnings for the month of August, in which she had sales amounting to $38,670?

$2667

Difficulty: Medium
Jerome - Chapter 01 #165
Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.
Source: Student text
Topic: Basic Mathematics
Type: Word

166. Lauren's gross pay for July was $3188.35 on net sales totalling $88,630. If her base salary is $1000 per month, what is her rate of commission on sales exceeding her monthly quota of $40,000?

4.50%

Difficulty: Medium
Jerome - Chapter 01 #166
Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.
Source: Student text
Topic: Basic Mathematics
Type: Word

167. Havel signed a listing agreement with a realtor. The commission rate is 4% on the first $200,000 of the selling price, and 2.5% on the remainder. a) What commission will Havel pay if he sells his home for $289,000? b) What is the average commission rate on the selling price?

a) $10,225.00 and b) 3.54%

Difficulty: Easy
Jerome - Chapter 01 #167
Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.
Source: Student text
Topic: Basic Mathematics
Type: Word

168. "Souvenirs and Such" is a gift shop in Niagara Falls. Last year 22% of its revenue came from the sale of clothing, 18% from food items, and 32% from novelty items and the remainder from special services they provide for tourists. This past year they experienced a 5% increase in the sale of clothing, a 2% increase in the sale of food items, a 9% drop in novelty items and a 2% drop in special services. What is the average change in their revenue for this year?

-1.98%

Difficulty: Medium
Jerome - Chapter 01 #168
Learning Objective: 01-06 Calculate the simple average or weighted average (as appropriate) of a set of values.
Source: Student text
Topic: Basic Mathematics
Type: Word

169. Ms. Yong invested a total of $73,400 in three mutual funds as shown in the table below. The third column shows the change in value of each fund during the subsequent six months.

Mutual Fund	Amount Invested ($)	Change in value (%)
Canadian equity fund	16,800	–4.3
US equity fund	25,600	–1.1
Global equity fund	31,000	8.2

What was the percent change in value of Ms. Yong's overall mutual fund portfolio during the six-month holding period?

2.10%

Difficulty: Medium
Jerome - Chapter 01 #169
Learning Objective: 01-06 Calculate the simple average or weighted average (as appropriate) of a set of values.
Source: Student text

Topic: Basic Mathematics

Type: Word

170. One year ago Helga allocated the funds in her portfolio among five securities in the amounts listed in the following table. The rate of return on each security for the year is given in the third column of the table.

Security	Amount Invested	Rate of return for the year
Company U shares	$5000	30%
Province V bonds	20,000	-3
Company W shares	8000	-15
Units in Fund X	25,000	13
Company Y shares	4500	45

Calculate the rate of return for the entire portfolio.

7.96%

Difficulty: Medium

Jerome - Chapter 01 #170

Learning Objective: 01-06 Calculate the simple average or weighted average (as appropriate) of a set of values.

Source: Student text

Topic: Basic Mathematics

Type: Word

171. Anthony began the year with $96,400 already invested in his Snow 'n Ice retail store. He withdrew $14,200 on March 1 and another $21,800 on April 1. On August 1, he invested $23,700, and on November 1 he contributed another $19,300. What was his average cumulative investment during the year? (Assume that each month has the same length.)

$81,308.33

Difficulty: Medium

Jerome - Chapter 01 #171

Learning Objective: 01-06 Calculate the simple average or weighted average (as appropriate) of a set of values.

Source: Student text

Topic: Basic Mathematics

Type: Word

172. The fiscal year for Pine Valley Skiing Ltd., the owner of a downhill skiing facility, ends on June 30. The company began the recently completed fiscal year with its summer maintenance crew of 7. The following table presents the sequence of employees hired and layoffs during the fiscal year.

Date	Employee changes
Sept. 1	6 hired
Nov. 1	18 hired
Dec. 1	23 hired
Mar. 1	11 laid off
Apr. 1	20 laid off
May 1	16 laid off

What was the average number of employees working for Pine Valley during the fiscal year? (Assume that each month has the same length.)

26.1

Difficulty: Medium

Jerome - Chapter 01 #172

Learning Objective: 01-06 Calculate the simple average or weighted average (as appropriate) of a set of values.

Source: Student text

Topic: Basic Mathematics

Type: Word

173. $\$250\left(1+0.05\times\frac{145}{365}\right)$

Evaluate the answer correct to the cent:

$254.97

Difficulty: Medium
Jerome - Chapter 01 #173
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Test bank
Topic: Basic Mathematics
Type: Word

174. $\frac{\$2500}{1+0.06\times\frac{8}{12}}$

Evaluate the answer correct to the cent:

$2,403.85

Difficulty: Medium
Jerome - Chapter 01 #174
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Test bank
Topic: Basic Mathematics
Type: Word

175. Evaluate the answer correct to the cent: $\frac{\$5000}{(1+0.04)^2}$

$4,622.78

Difficulty: Medium
Jerome - Chapter 01 #175
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Test bank
Topic: Basic Mathematics
Type: Word

176. Evaluate the answer correct to the cent: $\$700(1+0.05)^3$

$810.34

Difficulty: Medium
Jerome - Chapter 01 #176
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Test bank
Topic: Basic Mathematics
Type: Word

177. $\$1100\left(\frac{(1+0.05)^2-1}{0.05}\right)$

Evaluate the answer correct to the cent:

$2,255

Difficulty: Medium
Jerome - Chapter 01 #177
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Test bank
Topic: Basic Mathematics
Type: Word

178. $\$3000\left(1+0.04\times\frac{285}{365}\right)$

Evaluate the answer correct to the cent:

$3,093.70

Difficulty: Medium
Jerome - Chapter 01 #178
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Test bank
Topic: Basic Mathematics
Type: Word

179. $\dfrac{\$750}{1+0.04\times\dfrac{5}{12}}$

Evaluate the answer correct to the cent:

$737.70

Difficulty: Medium
Jerome - Chapter 01 #179
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Test bank
Topic: Basic Mathematics
Type: Word

180. $\dfrac{\$100}{1+.025\times\dfrac{13}{12}}$

Evaluate the answer correct to the cent:

$97.36

Difficulty: Medium
Jerome - Chapter 01 #180
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Learning Objective: 01-02 Convert fractions to their percent and decimal equivalents.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Test bank
Topic: Basic Mathematics
Type: Word

181. Evaluate the answer correct to the cent: $\frac{\$1000}{(1+0.05)^2}$

$907.03

Difficulty: Medium
Jerome - Chapter 01 #181
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Test bank
Topic: Basic Mathematics
Type: Word

182. Evaluate the answer correct to the cent: $\$1700(1+0.04)^3$

$1,912.27

Difficulty: Medium
Jerome - Chapter 01 #182
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Test bank
Topic: Basic Mathematics
Type: Word

183. $\$6000\left(\frac{(1+0.045)^2-1}{0.045}\right)$

Evaluate the answer correct to the cent:

$12,270

Difficulty: Medium
Jerome - Chapter 01 #183
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Test bank
Topic: Basic Mathematics
Type: Word

184. Solve the following equation $30 \div 3 + 12 \div 4$

13

Difficulty: Easy
Jerome - Chapter 01 #184
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Test bank
Topic: Basic Mathematics
Type: Word

185. Solve the following equation $30 \div (3 + 12) \div 2$

1

Difficulty: Easy
Jerome - Chapter 01 #185

Learning Objective: 01-01 Perform arithmetic operations in their proper order.

Source: Test bank

Topic: Basic Mathematics

Type: Word

186. Solve the following equation $12+3\left[2+(4^2-13)^2\right]^2$

375

Difficulty: Medium

Jerome - Chapter 01 #186

Learning Objective: 01-01 Perform arithmetic operations in their proper order.

Source: Test bank

Topic: Basic Mathematics

Type: Word

187. Solve the following equation $5-(2-4)^2+2^3-4^2$

-7

Difficulty: Medium

Jerome - Chapter 01 #187

Learning Objective: 01-01 Perform arithmetic operations in their proper order.

Source: Test bank

Topic: Basic Mathematics

Type: Word

188. Convert the following to its decimal and percent equivalents. $2\frac{2}{5}$

2.4 = 240%

Difficulty: Easy
Jerome - Chapter 01 #188
Learning Objective: 01-02 Convert fractions to their percent and decimal equivalents.
Source: Test bank
Topic: Basic Mathematics
Type: Word

189. Convert the following to its decimal and percent equivalents. $\frac{0.050}{4}$

0.0125 = 1.25%

Difficulty: Medium
Jerome - Chapter 01 #189
Learning Objective: 01-02 Convert fractions to their percent and decimal equivalents.
Source: Test bank
Topic: Basic Mathematics
Type: Word

190. Evaluate: $\$500\left[\frac{(1+0.04)^6-1}{0.04}\right]$

$3316.49

Difficulty: Medium
Jerome - Chapter 01 #190

Learning Objective: 01-01 Perform arithmetic operations in their proper order.

Learning Objective: 01-03 Maintain the proper number of digits in calculations.

Source: Test bank

Topic: Basic Mathematics

Type: Word

191. Evaluate: $\$80\left[1-\frac{1}{(1+\frac{0.03}{2})^4}\right] \Big/ \frac{0.03}{2} + \frac{1000}{(1+\frac{0.03}{2})^4}$

$1250.54

Difficulty: Hard

Jerome - Chapter 01 #191

Learning Objective: 01-01 Perform arithmetic operations in their proper order.

Learning Objective: 01-03 Maintain the proper number of digits in calculations.

Source: Test bank

Topic: Basic Mathematics

Type: Word

192. What is 0.54% of $200?

$1.08

Difficulty: Easy

Jerome - Chapter 01 #192

Learning Objective: 01-04 Perform calculations using fractions; decimals; and percents.

Source: Test bank

Topic: Basic Mathematics

Type: Word

193. 20% of $75 is what amount?

15

Difficulty: Easy
Jerome - Chapter 01 #193
Learning Objective: 01-04 Perform calculations using fractions; decimals; and percents.
Source: Test bank
Topic: Basic Mathematics
Type: Word

194. Syed's net pay is 81% of his gross pay. His net pay for two weeks is $1069.20. What is his gross pay for two weeks?

$1,320.00

Difficulty: Medium
Jerome - Chapter 01 #194
Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.
Source: Test bank
Topic: Basic Mathematics
Type: Word

195. What amount is 130% percent of $1150?

$1495

Difficulty: Medium
Jerome - Chapter 01 #195
Learning Objective: 01-04 Perform calculations using fractions; decimals; and percents.
Source: Test bank
Topic: Basic Mathematics

Type: Word

196. Hany earns $17.00 per hour for a forty-hour week. His overtime rate is 1 ½ times any hours exceeding forty in a week. What will Sam's gross earnings be for a week if he works 42.5 hours?

$743.75

Difficulty: Medium
Jerome - Chapter 01 #196
Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.
Source: Test bank
Topic: Basic Mathematics
Type: Word

197. Surinder works in a retail store in Square One in Mississauga. She earns a base salary of $320 per week, and a commission of 3% on sales over her quota of $5000. How much will Larissa earn if her sales for the week are: a) $4500? b) $8500?

$320; $425

Difficulty: Medium
Jerome - Chapter 01 #197
Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.
Source: Test bank
Topic: Basic Mathematics
Type: Word

198. Kristina is a sales representative for a pharmaceutical company. She is paid the greater of $3500 per month or 5% of sales. a) What are her earnings for the month if her sales are $60,000? $78,000? b) At what volume of sales per month will she start to earn more from the commission-based compensation?

a) $3500; $3900; b) $70,000

Difficulty: Hard
Jerome - Chapter 01 #198
Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.
Source: Test bank
Topic: Basic Mathematics
Type: Word

199. Safa's gross pay last month was $3300.00. Her base salary is $3000 per month, plus a commission of 2% on sales over $60,000. What were Safa's sales for last month?

$75,000

Difficulty: Hard
Jerome - Chapter 01 #199
Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.
Source: Test bank
Topic: Basic Mathematics
Type: Word

200. Cliff is a sales manager for a convention centre. He is paid on a graduated commission scale of 0.5% on the first $200,000, 0.7% on the next $300,000, and 0.8% on all additional sales for the month. What are Cliff's gross earnings in a month in which he sells: a) $400,000? b) $700,000?

$2400; $4700

Difficulty: Medium
Jerome - Chapter 01 #200
Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.
Source: Test bank
Topic: Basic Mathematics
Type: Word

201. Fatima took six courses last semester. Her grades and course credits are as follows:

Course	Grade	Credits
Accounting	B+	3
Business Mathematics	A	4
Human Resources	B	3
Economics	C+	3
Computer Applications	A	2
Marketing	B	3

Using the Letter Grade to Grade Point Value conversion table in Example 1.4D, calculate her grade point average for the semester.

3.27

Difficulty: Medium
Jerome - Chapter 01 #201
Learning Objective: 01-06 Calculate the simple average or weighted average (as appropriate) of a set of values.
Source: Test bank
Topic: Basic Mathematics
Type: Word

202. The following grades are from the first business mathematics test in the semester. What is the class average?

Grade	Number of Students
100	2
97	3
95	4
91	1
88	2
87	2
85	3
80	5
78	3
77	2
75	4
65	2
60	3
58	4
41	1
40	1

78

Difficulty: Medium

Jerome - Chapter 01 #202

Learning Objective: 01-06 Calculate the simple average or weighted average (as appropriate) of a set of values.

Source: Test bank

Topic: Basic Mathematics

Type: Word

203. Mrs. Sandhu invested $10,000 at 5%, $15,000 at 4%, and $20,000 at 3%. Calculate Mrs. Sandhu's overall rate of return.

3.78%

Difficulty: Medium
Jerome - Chapter 01 #203
Learning Objective: 01-06 Calculate the simple average or weighted average (as appropriate) of a set of values.
Source: Test bank
Topic: Basic Mathematics
Type: Word

204. Akini is paid on a graduated commission scale of 1% on his first $200,000 in sales, 2% on the next $300,000, and 4% on all additional sales in a month. What is Akini's average commission rate on monthly sales totalling $600,000?

2%

Difficulty: Medium
Jerome - Chapter 01 #204
Learning Objective: 01-06 Calculate the simple average or weighted average (as appropriate) of a set of values.
Source: Test bank
Topic: Basic Mathematics
Type: Word

205. Jenna bought a car for $42,050.90, which included 8% PST and 5% GST. What was the selling price of the car?

$37,213.19

Difficulty: Medium

Jerome - Chapter 01 #205

Learning Objective: 01-07 Perform basic calculations for the Goods and Services Tax; Harmonized Sales Tax; provincial sales tax; and real property tax.

Source: Test bank

Topic: Basic Mathematics

Type: Word

206. M Studios files GST returns quarterly. In the last quarter, M Studios sold picture frames totalling $3,750, photographic equipment for $78,225, and billed $43,580 for studio work. In the same time period, M Studios paid $3,000 for rent, $1275 for utilities, and purchased goods subject to GST for $65,000. What GST must be remitted by M Studios (or refunded by the CRA) for this quarter? (Assume GST = 5%)

remit $2814.00

Difficulty: Easy

Jerome - Chapter 01 #206

Learning Objective: 01-07 Perform basic calculations for the Goods and Services Tax; Harmonized Sales Tax; provincial sales tax; and real property tax.

Source: Test bank

Topic: Basic Mathematics

Type: Word

207. Sam buys a sweater listed at $100. How much will he pay for the sweater including taxes in: a) Ontario? b) Quebec? c) Alberta? d) Manitoba?
(Assume GST = 5%)

a) $113.00; b) $114.98: c) $105.00; d) $113.00

Difficulty: Medium

Jerome - Chapter 01 #207

Learning Objective: 01-07 Perform basic calculations for the Goods and Services Tax; Harmonized Sales Tax; provincial sales tax; and real property tax.

Source: Test bank

Topic: Basic Mathematics

Type: Word

208. The town of Simcoe is considering raising the $2 billion required for a sports complex by approving a new capital levy component of the property tax. The levy must be collected over the next five years. If the total assessed value of property in the town is $875 billion, what additional tax will a home owner of a property assessed at $300,000 pay?

$137.14

Difficulty: Medium
Jerome - Chapter 01 #208
Learning Objective: 01-07 Perform basic calculations for the Goods and Services Tax; Harmonized Sales Tax; provincial sales tax; and real property tax.
Source: Test bank
Topic: Basic Mathematics
Type: Word

209. Evaluate 8 - 5 × 2 - 3 =

A. -5
B. 3
C. 5
D. -3
E. 15

Accessibility: Keyboard Navigation
Difficulty: Easy
Jerome - Chapter 01 #209
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Test bank
Topic: Basic Mathematics
Type: MC

210. Evaluate 8 - 4 × (2 - 3) =

A. -4

B. 12

C. 5

D. 11

E. 4

Accessibility: Keyboard Navigation
Difficulty: Easy
Jerome - Chapter 01 #210
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Test bank
Topic: Basic Mathematics
Type: MC

211. Evaluate 18 ÷ 3 + 8 - 4 × 2 - 3 =

A. 17

B. 25

C. 3

D. 11

E. 4

Difficulty: Easy
Jerome - Chapter 01 #211
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Test bank
Topic: Basic Mathematics
Type: MC

212. Evaluate $18 \div 3 + (8 - 4) \times (2 - 3) =$

A. -10

B. 17

C. -18

D. 2 E. 4

Difficulty: Easy
Jerome - Chapter 01 #212
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Test bank
Topic: Basic Mathematics
Type: MC

213. Evaluate $8 - 4 \times (2 - 3)^2 =$

A. 25

B. -1

C. 12

D. 17

E. 4

Accessibility: Keyboard Navigation
Difficulty: Easy
Jerome - Chapter 01 #213
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Test bank
Topic: Basic Mathematics
Type: MC

214. Evaluate $6 - 2 + 3 \times (2 - 3)^2 =$

A. 7

B. 12

C. -12

D. -1

E. 1

Accessibility: Keyboard Navigation

Difficulty: Easy

Jerome - Chapter 01 #214

Learning Objective: 01-01 Perform arithmetic operations in their proper order.

Source: Test bank

Topic: Basic Mathematics

Type: MC

215. Evaluate the following:

$$\frac{3(2+1)^2 + 5^2}{4 - 3^2}$$

A. -7.4

B. -10.4

C. -14.8

D. 10.4

E. 7.4

Difficulty: Easy

Jerome - Chapter 01 #215

Learning Objective: 01-01 Perform arithmetic operations in their proper order.

Source: Test bank

Topic: Basic Mathematics

Type: MC

216. Evaluate $3(8 - 4)^2 \times (2 - 3)^2 =$

A. 400

B. -400

C. 48

D. -48

E. 93

Accessibility: Keyboard Navigation
Difficulty: Easy
Jerome - Chapter 01 #216
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Test bank
Topic: Basic Mathematics
Type: MC

217. Evaluate $3[4 + (5 - 3)^2]^2 =$

A. 256

B. 38,416

C. 3600

D. 192

E. 576

Accessibility: Keyboard Navigation
Difficulty: Easy
Jerome - Chapter 01 #217
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Test bank
Topic: Basic Mathematics
Type: MC

218. Evaluate $(2 - 3 \times 4)^2 - 5 \times (5 - 6)^2 =$

A. 11

B. 125

C. -21

D. 95

E. 395

Accessibility: Keyboard Navigation

Difficulty: Easy

Jerome - Chapter 01 #218

Learning Objective: 01-01 Perform arithmetic operations in their proper order.

Source: Test bank

Topic: Basic Mathematics

Type: MC

219. Evaluate $\$1200\left(1 + .0625 \times \frac{7}{12}\right)$

A. $743.75

B. $1725.00

C. $700.04

D. $1637.50

E. $1243.75

Difficulty: Easy

Jerome - Chapter 01 #219

Learning Objective: 01-01 Perform arithmetic operations in their proper order.

Learning Objective: 01-03 Maintain the proper number of digits in calculations.

Source: Test bank

Topic: Basic Mathematics

Type: MC

220. Evaluate $\$1000\left(1+.045\times\frac{17}{12}\right)$

A. $1063.75

B. $1416.73

C. $1765.00

D. $1637.50

E. $1480.42

Difficulty: Easy

Jerome - Chapter 01 #220

Learning Objective: 01-01 Perform arithmetic operations in their proper order.

Learning Objective: 01-03 Maintain the proper number of digits in calculations.

Source: Test bank

Topic: Basic Mathematics

Type: MC

221. Evaluate $\$750\left(1-.0575\times\frac{150}{365}\right)$

A. $749.98

B. $732.28

C. $308.20

D. $572.77

E. $767.72

Difficulty: Easy

Jerome - Chapter 01 #221

Learning Objective: 01-01 Perform arithmetic operations in their proper order.

Learning Objective: 01-03 Maintain the proper number of digits in calculations.

Source: Test bank

Topic: Basic Mathematics

Type: MC

222. Evaluate $\$650\left(1-.0625\times\frac{21}{12}\right)$

A. $1137.39

B. $721.09

C. $578.91

D. $446.88

E. $576.06

Difficulty: Easy

Jerome - Chapter 01 #222

Learning Objective: 01-01 Perform arithmetic operations in their proper order.

Learning Objective: 01-03 Maintain the proper number of digits in calculations.

Source: Test bank

Topic: Basic Mathematics

Type: MC

223. Evaluate $\frac{\$1050}{\left(1+\frac{0.065}{12}\right)^3}$

A. $1067.16

B. $1035.95

C. $896.32

D. $1033.12 E. $1502.05

Difficulty: Easy

Jerome - Chapter 01 #223

Learning Objective: 01-01 Perform arithmetic operations in their proper order.

Learning Objective: 01-03 Maintain the proper number of digits in calculations.

Source: Test bank

Topic: Basic Mathematics

Type: MC

224. Evaluate $\dfrac{\$25,000}{\left(1+\dfrac{0.07}{12}\right)^{4}}$

A. $25,588.46

B. $19,927.38

C. $19,072.38

D. $24,855.01

E. $24,425.08

Difficulty: Easy

Jerome - Chapter 01 #224

Learning Objective: 01-01 Perform arithmetic operations in their proper order.

Learning Objective: 01-03 Maintain the proper number of digits in calculations.

Source: Test bank

Topic: Basic Mathematics

Type: MC

225. Evaluate $\dfrac{\$1500\left(1+0.055\times\dfrac{3}{12}\right)}{1+0.10\times\dfrac{9}{12}}$

A. $1414.53

B. $1843.18

C. $348.85

D. $454.56

E. $1625.58

Difficulty: Medium

Jerome - Chapter 01 #225

Learning Objective: 01-01 Perform arithmetic operations in their proper order.

Learning Objective: 01-03 Maintain the proper number of digits in calculations.

Source: Test bank

Topic: Basic Mathematics

Type: MC

226. $$\frac{\$1750\left(1+\frac{0.11}{4}\right)^{3}}{1+0.075\times\frac{275}{365}}$$

Evaluate

A. $1701.95

B. $1796.85

C. $2265.35

D. $1897.86

E. $2392.70

Difficulty: Medium

Jerome - Chapter 01 #226

Learning Objective: 01-01 Perform arithmetic operations in their proper order.

Learning Objective: 01-03 Maintain the proper number of digits in calculations.

Source: Test bank

Topic: Basic Mathematics

Type: MC

227. $$\$20,000\left[\frac{\left(1+\frac{0.05}{2}\right)^{4}-1}{\frac{0.05}{2}}\right]$$

Evaluate

A. $172,405.00

B. $82,207.63

C. $83,050.31

D. $41,525.16

E. $86,202.50

Difficulty: Medium

Jerome - Chapter 01 #227

Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Test bank
Topic: Basic Mathematics
Type: MC

228. Evaluate $\$675\left[\dfrac{\left(1+\dfrac{0.065}{4}\right)^{6}-1}{\dfrac{0.065}{4}}\right]$

A. $2766.53

B. $1054.53

C. $19,072.06

D. $4218.14

E. $45,756.60

Difficulty: Medium
Jerome - Chapter 01 #228
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Test bank
Topic: Basic Mathematics
Type: MC

229.

$$\frac{\$900}{\frac{\left(1+\frac{0.055}{4}\right)^{7}-1}{\frac{0.055}{4}}}$$

Evaluate

A. $493.46

B. $27.22

C. $900.00

D. $84.52

E. $123.36

Difficulty: Medium

Jerome - Chapter 01 #229

Learning Objective: 01-01 Perform arithmetic operations in their proper order.

Learning Objective: 01-03 Maintain the proper number of digits in calculations.

Source: Test bank

Topic: Basic Mathematics

Type: MC

230.

$$\frac{\$2500}{\frac{\left(1-\frac{0.065}{2}\right)^{4}+1}{\frac{0.065}{2}}}$$

Evaluate

A. $43.31

B. $38.03

C. $86.61

D. $83.98

E. $48.51

Difficulty: Medium

Jerome - Chapter 01 #230

Learning Objective: 01-01 Perform arithmetic operations in their proper order.

Learning Objective: 01-03 Maintain the proper number of digits in calculations.

Source: Test bank

Topic: Basic Mathematics

Type: MC

231. Evaluate $\$110\left[1-\frac{3}{\left(1+\frac{0.085}{12}\right)^{5}}\right]-\frac{\left(1+\frac{0.085}{12}\right)^{4}}{\frac{0.085}{12}}$

A. -$404.21

B. -$353.78

C. -$185.74

D. -$208.56

E. -$145.22

Difficulty: Hard

Jerome - Chapter 01 #231

Learning Objective: 01-01 Perform arithmetic operations in their proper order.

Learning Objective: 01-03 Maintain the proper number of digits in calculations.

Source: Test bank

Topic: Basic Mathematics

Type: MC

232. Evaluate $\$1500\left[1+\frac{1}{\left(1-\frac{0.04}{12}\right)^3}\right]-\frac{\left(1+\frac{0.04}{12}\right)^3}{\frac{0.04}{12}}$

A. $1489.85

B. $2892.41

C. $2712.09

D. $1177.64

E. $1818.11

Difficulty: Hard

Jerome - Chapter 01 #232

Learning Objective: 01-01 Perform arithmetic operations in their proper order.

Learning Objective: 01-03 Maintain the proper number of digits in calculations.

Source: Test bank

Topic: Basic Mathematics

Type: MC

233. What amount is 230% of $450?

A. $103,500

B. $1.035

C. $51.11

D. $1035

E. $195.65

Accessibility: Keyboard Navigation

Difficulty: Easy

Jerome - Chapter 01 #233

Learning Objective: 01-04 Perform calculations using fractions; decimals; and percents.

Source: Test bank

Topic: Basic Mathematics

Type: MC

234. What amount is 0.04% of $200,000?

A. $8000

B. $800

C. $8

D. $.80

E. $80

Accessibility: Keyboard Navigation

Difficulty: Easy

Jerome - Chapter 01 #234

Learning Objective: 01-04 Perform calculations using fractions; decimals; and percents.

Source: Test bank

Topic: Basic Mathematics

Type: MC

235. 4.9% of $2750 is what amount?

A. $134.75

B. $13,475

C. $2,884.75

D. $13.48

E. $284.48

Accessibility: Keyboard Navigation

Difficulty: Easy

Jerome - Chapter 01 #235

Learning Objective: 01-04 Perform calculations using fractions; decimals; and percents.

Source: Test bank

Topic: Basic Mathematics

Type: MC

236. What is 0.05% of $9100?

A. $455.00

B. $4.55

C. $4550.00

D. $45.50

E. $0.455.

Accessibility: Keyboard Navigation
Difficulty: Easy
Jerome - Chapter 01 #236
Learning Objective: 01-04 Perform calculations using fractions; decimals; and percents.
Source: Test bank
Topic: Basic Mathematics
Type: MC

237. What is 13.5% of $5000?

A. $67.5

B. $6.75

C. $675

D. $6,750.00

E. $0.675

Accessibility: Keyboard Navigation
Difficulty: Easy
Jerome - Chapter 01 #237
Learning Objective: 01-04 Perform calculations using fractions; decimals; and percents.
Source: Test bank
Topic: Basic Mathematics
Type: MC

238. What is 2500% of $1625?

A. $4,0625

B. $406.25

C. $40.63

D. $40,625

E. $4,062

Accessibility: Keyboard Navigation

Difficulty: Easy

Jerome - Chapter 01 #238

Learning Objective: 01-04 Perform calculations using fractions; decimals; and percents.

Source: Test bank

Topic: Basic Mathematics

Type: MC

239. 78% of $249.60 is what amount?

A. $151.86

B. $269.07

C. $26.91

D. $19.47

E. $194.69

Accessibility: Keyboard Navigation

Difficulty: Easy

Jerome - Chapter 01 #239

Learning Objective: 01-04 Perform calculations using fractions; decimals; and percents.

Source: Test bank

Topic: Basic Mathematics

Type: MC

240. 24% of $675 is what amount?

A. $162

B. $16.88

C. $691.20

D. $123.12

E. $389.88

Accessibility: Keyboard Navigation
Difficulty: Easy
Jerome - Chapter 01 #240
Learning Objective: 01-04 Perform calculations using fractions; decimals; and percents.
Source: Test bank
Topic: Basic Mathematics
Type: MC

241. 0.0⅞ % of $10,000 is what amount?

A. $87.50

B. $8.75

C. $87,500

D. $8,750

E. $875

Accessibility: Keyboard Navigation
Difficulty: Medium
Jerome - Chapter 01 #241
Learning Objective: 01-04 Perform calculations using fractions; decimals; and percents.
Source: Test bank
Topic: Basic Mathematics
Type: MC

242. 0.0¾ % of $6000 is what amount?

A. $0.45

B. $45.00

C. $4.50

D. $450.00

E. $4,500.00

Accessibility: Keyboard Navigation
Difficulty: Medium
Jerome - Chapter 01 #242
Learning Objective: 01-04 Perform calculations using fractions; decimals; and percents.
Source: Test bank
Topic: Basic Mathematics
Type: MC

243. Nitin earns $48,000 per year. Determine his gross earnings each pay period in a year if he is paid biweekly. Assume there are 52 weeks in the year.

A. $2000

B. $4000

C. $923.08

D. $1846.15

E. $1923.08

Accessibility: Keyboard Navigation
Difficulty: Easy
Jerome - Chapter 01 #243
Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.
Source: Test bank
Topic: Basic Mathematics
Type: MC

244. Nitin earns $48,000 per year for a forty-hour work week. Determine his hourly rate of pay if he is paid biweekly. Assume there are 52 weeks in the year.

A. $250.00
B. $24.04
C. $46.50
D. $50.00
E. $23.08

Accessibility: Keyboard Navigation
Difficulty: Easy
Jerome - Chapter 01 #244
Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.
Source: Test bank
Topic: Basic Mathematics
Type: MC

245. Nitin is paid a base salary of $200 per week and commission at the rate of 3% for sales over $5000, 4% if his sales are over $8000, and 5% if sales are over $15,000. How much will Nitin earn in a week in which his sales are $20,000?

A. $1200
B. $1000
C. $800
D. $600
E. $200

Accessibility: Keyboard Navigation
Difficulty: Easy
Jerome - Chapter 01 #245
Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.
Source: Test bank
Topic: Basic Mathematics
Type: MC

246. Nitin is paid a base salary of $300 per week and commission at the rate of 2.5% for sales over $5000, 4% if his sales are over $10,000, and 4.5% if sales are over $25,000. How much will Nitin earn in a week in which his sales are $20,000?

A. $800
B. $1100
C. $900
D. $1200
E. $1125

Accessibility: Keyboard Navigation
Difficulty: Easy
Jerome - Chapter 01 #246
Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.
Source: Test bank
Topic: Basic Mathematics
Type: MC

247. Nitin is paid on a graduated commission scale. His base salary is $250 per week and he receives commission at the rate of 2.5% for the first $5000 of sales in a week, 4% on the next $10,000, and 4.5% on all further sales. How much will Nitin earn in a week in which his sales are $30,000?

A. $1200
B. $1350
C. $1450
D. $1600
E. $1000

Accessibility: Keyboard Navigation
Difficulty: Easy
Jerome - Chapter 01 #247
Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.
Source: Test bank
Topic: Basic Mathematics

Type: MC

248. Nitin is paid on a graduated commission scale. His base salary is $1500 per month and he receives commission at the rate of 2% for the first $10,000 of sales in a month, 3% on the next $20,000, and 4.5% on all further sales. How much will Nitin earn in a month in which his sales are $60,000?

A. $2150
B. $2250
C. $3750
D. $3650
E. $2500

Accessibility: Keyboard Navigation
Difficulty: Easy
Jerome - Chapter 01 #248
Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.
Source: Test bank
Topic: Basic Mathematics
Type: MC

249. A sales representative is paid the greater of $950 or 8% of sales. At what volume of sales will he start to earn more from the commission-based compensation?

A. $9500
B. $1026
C. $1875
D. $1187.50
E. $11,875

Accessibility: Keyboard Navigation
Difficulty: Medium
Jerome - Chapter 01 #249
Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.
Source: Test bank

Topic: Basic Mathematics
Type: MC

250. A sales representative is paid the greater of $1275 per week or 9% of sales. At what volume of sales will she start to earn more from the commission-based compensation?

A. $14,166.67
B. $1389.75
C. $2295
D. $2422.50
E. $12,750

Accessibility: Keyboard Navigation
Difficulty: Medium
Jerome - Chapter 01 #250
Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.
Source: Test bank
Topic: Basic Mathematics
Type: MC

251. Nitin is paid on a graduated commission scale. He receives commission at the rate of 2.5% for the first $5000 of sales in a week, 4% on the next $10,000, and 4.5% on all further sales. What is Nitin's average rate of commission in a week in which his sales are $30,000?

A. 3.67%
B. 4%
C. 3.33%
D. 3.75%
E. 4.25%

Accessibility: Keyboard Navigation
Difficulty: Easy
Jerome - Chapter 01 #251
Learning Objective: 01-06 Calculate the simple average or weighted average (as appropriate) of a set of values.
Source: Test bank
Topic: Basic Mathematics

Type: MC

252. Nitin is paid on a graduated commission scale. He receives commission at the rate of 2% for the first $10,000 of sales in a month, 3% on the next $20,000, and 4.5% on all further sales. What is Nitin's average rate of commission in a month in which his sales are $60,000?

A. 3.167%
B. 3.417%
C. 3.583%
D. $5
E. 3.83%

Accessibility: Keyboard Navigation
Difficulty: Easy
Jerome - Chapter 01 #252
Learning Objective: 01-06 Calculate the simple average or weighted average (as appropriate) of a set of values.
Source: Test bank
Topic: Basic Mathematics
Type: MC

253. Safa is paid a base salary of $1500 per month and a commission of 6% on all sales over $75,000. Last month, Safa's gross salary was $4440. What were her sales for the month?

A. $49,000
B. $75,266.40
C. $149,000
D. $124,000
E. $100,000

Accessibility: Keyboard Navigation
Difficulty: Hard
Jerome - Chapter 01 #253
Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.
Source: Test bank
Topic: Basic Mathematics
Type: MC

254. Isaac earns a base salary of $1250 per month and a graduated commission of 0.4% on the first $100,000 of sales, and 0.5% on sales over $100,000. Last month, Isaac's gross salary was $2025. What were his sales for the month?

A. $75,000

B. $200,000

C. $312,500

D. $250,000

E. $175,000

Accessibility: Keyboard Navigation

Difficulty: Hard

Jerome - Chapter 01 #254

Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.

Source: Test bank

Topic: Basic Mathematics

Type: MC

255. Elita took six courses last semester. Her grades and course credits are as follows:

Course	Grade	Credits
Accounting	B+	4
Business Mathematics	A	4
Human Resources	B	3
Economics	C+	4
Computer Applications	C	2
Marketing	D	3

Use the Letter Grade to Grade Point Value conversion table below to calculate her grade point average for the semester.

Letter Grade	Grade Points
A+	4.0
A	4.0
B+	3.5
B	3.0
C+	2.5
C	2.0
D	1.0
F	0.0

A. 2.8

B. 2.7

C. 3.3

D. 3.0

E. 3.5

Difficulty: Easy

Jerome - Chapter 01 #255

Learning Objective: 01-06 Calculate the simple average or weighted average (as appropriate) of a set of values.

Source: Test bank

Topic: Basic Mathematics

Type: MC

256. Jayelle took six courses last semester. Her grades and course credits are as follows:

Course	Grade	Credits
Finance	B+	4
Statistics	C	2
General Education	B+	3
Macro Economics	B	3
Cost Accounting	B	4
Computer Applications	A+	2

Use the Letter Grade to Grade Point Value conversion table below to calculate her grade point average for the semester.

Letter Grade	Grade Points
A+	4.0
A	4.0
B+	3.5
B	3.0
C+	2.5
C	2.0
D	1.0
F	0.0

A. 3.75

B. 3.2

C. 3.0

D. 2.6

E. 2.8

Difficulty: Easy

Jerome - Chapter 01 #256

Learning Objective: 01-06 Calculate the simple average or weighted average (as appropriate) of a set of values.

Source: Test bank

Topic: Basic Mathematics

Type: MC

257. Kuldip invested $5000 at 6%, $10,000 at 5.5%, and $20,000 at 4%. What is the average rate of interest earned by her investments?

A. 5.2%

B. 5%

C. 4.7%

D. 5.25%

E. 4.75%

Accessibility: Keyboard Navigation
Difficulty: Easy
Jerome - Chapter 01 #257
Learning Objective: 01-06 Calculate the simple average or weighted average (as appropriate) of a set of values.
Source: Test bank
Topic: Basic Mathematics
Type: MC

258. Carlos invested $10,000 at 7%, $20,000 at 6.5%, and $50,000 at 5%. What is the average rate of interest earned by his investments?

A. 6.2%

B. 5.5%

C. 5.8%

D. 5.6%

E. 6.3%

Accessibility: Keyboard Navigation
Difficulty: Easy
Jerome - Chapter 01 #258
Learning Objective: 01-06 Calculate the simple average or weighted average (as appropriate) of a set of values.
Source: Test bank
Topic: Basic Mathematics
Type: MC

259. A customer has a first mortgage of $100,000 at 5.5% and a second mortgage of $50,000 at 7.8%. What is the average rate of mortgage that the customer pays?

A. 6.7%

B. 7%

C. 5.9%

D. 6.5%

E. 6.3%

Accessibility: Keyboard Navigation
Difficulty: Easy
Jerome - Chapter 01 #259
Learning Objective: 01-06 Calculate the simple average or weighted average (as appropriate) of a set of values.
Source: Test bank
Topic: Basic Mathematics
Type: MC

260. A client has a first mortgage of $175,000 at 5.8% and a second mortgage of $25,000 at 6.7%. What is the average rate of mortgage that the client pays?

A. 5.9%

B. 6.3%

C. 6.5%

D. 6%

E. 6.2%

Accessibility: Keyboard Navigation
Difficulty: Easy
Jerome - Chapter 01 #260
Learning Objective: 01-06 Calculate the simple average or weighted average (as appropriate) of a set of values.
Source: Test bank
Topic: Basic Mathematics
Type: MC

261. Sonal bought a coat for $198.88, which included 8% PST and 5% GST. What was the selling price of the coat?

A. $175.38

B. $176.00

C. $173.03

D. $182.97

E. $179.99

Accessibility: Keyboard Navigation
Difficulty: Easy
Jerome - Chapter 01 #261
Learning Objective: 01-07 Perform basic calculations for the Goods and Services Tax; Harmonized Sales Tax; provincial sales tax; and real property tax.
Source: Test bank
Topic: Basic Mathematics
Type: MC

262. Sonal bought a new sound system for her car costing $604.79. Sonal lives in Calgary, and so the price included 5% GST. What was the selling price of the new sound system?

A. $573.17

B. $574.58

C. $575.99

D. $616.31

E. $570.66

Accessibility: Keyboard Navigation
Difficulty: Easy
Jerome - Chapter 01 #262
Learning Objective: 01-07 Perform basic calculations for the Goods and Services Tax; Harmonized Sales Tax; provincial sales tax; and real property tax.
Source: Test bank
Topic: Basic Mathematics
Type: MC

263. Calculate the PST on a sweater costing $59.95 in Manitoba, Alberta, and Quebec. (Assume 5% GST).

A. $4.77; $0.00; $5.98

B. $4.80; $4.77; $4.50

C. $4.80; $4.50; $4.77

D. $4.80; $0.00; $5.98

E. $4.77; $0.00; $4.20

Accessibility: Keyboard Navigation
Difficulty: Easy
Jerome - Chapter 01 #263
Learning Objective: 01-07 Perform basic calculations for the Goods and Services Tax; Harmonized Sales Tax; provincial sales tax; and real property tax.
Source: Test bank
Topic: Basic Mathematics
Type: MC

264. Calculate the PST on a jacket costing $89.50 in Alberta, Manitoba, and Saskatchewan.

A. $0.00; $5.71; $6.27

B. $6.27; $6.27; $4.48

C. $5.37; $7.16; $5.27

D. $6.27; $6.27; $5.37

E. $0.00; $7.16; $4.48

Accessibility: Keyboard Navigation
Difficulty: Easy
Jerome - Chapter 01 #264
Learning Objective: 01-07 Perform basic calculations for the Goods and Services Tax; Harmonized Sales Tax; provincial sales tax; and real property tax.
Source: Test bank
Topic: Basic Mathematics
Type: MC

265. M Studios (Calgary) had retail sales of $166,425, including GST, for the last quarter. In the same period M Studios purchased $45,000 worth of supplies and paid $75,000 for store renovations, plus the GST on these goods and services. What GST must be remitted by M Studios (or refunded) for the last quarter? (Assume GST = 5%).

A. $1925
B. $2321.25
C. $14,323.26
D. $6071.25
E. $4573.26

Accessibility: Keyboard Navigation
Difficulty: Medium
Jerome - Chapter 01 #265
Learning Objective: 01-07 Perform basic calculations for the Goods and Services Tax; Harmonized Sales Tax; provincial sales tax; and real property tax.
Source: Test bank
Topic: Basic Mathematics
Type: MC

266. M Studios (Ontario) had retail sales of $288,528.55, including HST, for the last quarter. In the same period M Studios purchased $250,000 worth of supplies and paid the GST on these goods. What GST must be remitted by M Studios (or refunded) for the last quarter? (Assume 8% PST and 5% GST).

A. $50.99
B. $266.75
C. $1926.43
D. $426.80
E. $5008.71

Accessibility: Keyboard Navigation
Difficulty: Medium
Jerome - Chapter 01 #266
Learning Objective: 01-07 Perform basic calculations for the Goods and Services Tax; Harmonized Sales Tax; provincial sales tax; and real property tax.

Source: Test bank

Topic: Basic Mathematics

Type: MC

267. A homeowner's tax statement lists the following mill rates for various municipal services:

Tax Rate	Mill Rate
Schools	6.75
City	7.21
Water	0.92
Sewers	0.87

What is the property tax on a house assessed at $300,000?

A. $4464

B. $4449

C. $4725

D. $2562

E. $2700

Difficulty: Easy

Jerome - Chapter 01 #267

Learning Objective: 01-07 Perform basic calculations for the Goods and Services Tax; Harmonized Sales Tax; provincial sales tax; and real property tax.

Source: Test bank

Topic: Basic Mathematics

Type: MC

268. A homeowner's tax statement lists the following mill rates for various municipal services:

Tax Rate	Mill Rate
Schools	6.75
City	7.21
Water	0.92
Sewers	0.87

The homeowner paid $3937.50 in property taxes last year. What is the assessed value of his property?

A. $264,617

B. $265,509

C. $461,066

D. $250,000

E. $437,500

Difficulty: Medium

Jerome - Chapter 01 #268

Learning Objective: 01-07 Perform basic calculations for the Goods and Services Tax; Harmonized Sales Tax; provincial sales tax; and real property tax.

Source: Test bank

Topic: Basic Mathematics

Type: MC

269. Evaluate: $\dfrac{\frac{3}{4}+\frac{7}{5}}{\frac{11}{6}-\frac{10}{12}}=$

A. 0.465

B. 0.80625

C. 1.24031

D. 12.9

E. 2.15

Difficulty: Easy

Jerome - Chapter 01 #269
Learning Objective: 01-02 Convert fractions to their percent and decimal equivalents.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Test bank
Topic: Basic Mathematics
Type: MC

270. (8 - 5 / 2) / (12 * 3 - 6)

A. 5.4545
B. 0.05
C. -0.1528
D. 6.5454
E. 0.1833

Accessibility: Keyboard Navigation
Difficulty: Easy
Jerome - Chapter 01 #270
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Test bank
Topic: Basic Mathematics
Type: MC

271. Evaluate 0.5 × 0.001 =

A. 0.0005
B. 0.005
C. $\frac{51}{10{,}000}$
D. $\frac{3}{2000}$
E. 5000

Difficulty: Medium
Jerome - Chapter 01 #271
Learning Objective: 01-02 Convert fractions to their percent and decimal equivalents.

Learning Objective: 01-03 Maintain the proper number of digits in calculations.

Source: Test bank

Topic: Basic Mathematics

Type: MC

272. Evaluate $\dfrac{\frac{6}{7}+\frac{2}{3}}{\frac{3}{7}}$

A. 24.89

B. 3.556

C. 4.190

D. 6.429

E. 5.071

Difficulty: Medium

Jerome - Chapter 01 #272

Learning Objective: 01-02 Convert fractions to their percent and decimal equivalents.

Learning Objective: 01-03 Maintain the proper number of digits in calculations.

Source: Test bank

Topic: Basic Mathematics

Type: MC

273. Evaluate (8 / 5 - 2) / (12 - 2 - 4) =

A. 2.4

B. -0.067

C. -2.4

D. 0.444

E. -l.0

Accessibility: Keyboard Navigation

Difficulty: Easy

Jerome - Chapter 01 #273

Learning Objective: 01-01 Perform arithmetic operations in their proper order.

Source: Test bank

Topic: Basic Mathematics

Type: MC

274. Evaluate -14(2) + 16 / 32 + 4 =

A. -22

B. $-24\frac{1}{2}$

C. $-28\frac{4}{9}$

D. $-24\frac{4}{9}$

E. $-23\frac{1}{2}$

Difficulty: Easy
Jerome - Chapter 01 #274
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Test bank
Topic: Basic Mathematics
Type: MC

275. Evaluate $(25 - 9) / (6 - 2)^2$ =

A. 256

B. 1

C. 8

D. 4

E. 0.5

Accessibility: Keyboard Navigation
Difficulty: Easy
Jerome - Chapter 01 #275
Learning Objective: 01-01 Perform arithmetic operations in their proper order.
Source: Test bank
Topic: Basic Mathematics

Type: MC

276. Evaluate $\dfrac{5 - (6 - 14)}{200 - 0.25 \times \dfrac{3000}{15}}$ =

A. 0.1267

B. 0.052

C. 0.0867

D. 0.076

E. -0.07667

Difficulty: Medium

Jerome - Chapter 01 #276

Learning Objective: 01-01 Perform arithmetic operations in their proper order.

Learning Objective: 01-03 Maintain the proper number of digits in calculations.

Source: Test bank

Topic: Basic Mathematics

Type: MC

277. Evaluate $16 - 4\left(1 - 0.3 \div \dfrac{435}{650}\right)$ =

A. 6.621

B. 17.379

C. 13.793

D. 10.207

E. 12.803

Difficulty: Easy

Jerome - Chapter 01 #277

Learning Objective: 01-01 Perform arithmetic operations in their proper order.

Learning Objective: 01-03 Maintain the proper number of digits in calculations.

Source: Test bank

Topic: Basic Mathematics

Type: MC

278. Express as a percent: $\frac{40.3}{80}$

A. 50.375%

B. 0.0050375%

C. 0.50375%

D. 5.0375%

E. 503.75%

Difficulty: Easy
Jerome - Chapter 01 #278
Learning Objective: 01-02 Convert fractions to their percent and decimal equivalents.
Learning Objective: 01-03 Maintain the proper number of digits in calculations.
Source: Test bank
Topic: Basic Mathematics
Type: MC

279. A piece of property valued at $2,000,000 is assessed for property tax purposes at 70% of its value. If the property tax is $20.00 on each $1000.00 of assessed value, what is the amount of tax?

A. $23,700.00

B. $4000.00

C. $28,000.00

D. $12,000.00

E. $40,000.00

Accessibility: Keyboard Navigation
Difficulty: Medium
Jerome - Chapter 01 #279
Learning Objective: 01-07 Perform basic calculations for the Goods and Services Tax; Harmonized Sales Tax; provincial sales tax; and real property tax.
Source: Test bank
Topic: Basic Mathematics
Type: MC

280. Calculate the price including both GST and PST, that an individual will pay for a car sold for $26,995.00 in Manitoba (Assume GST = 5% and PST = 8%)

A. $28,334.75

B. $30,504.35

C. $29,154.60

D. $30,234.40

E. $26,995.00

Accessibility: Keyboard Navigation
Difficulty: Medium
Jerome - Chapter 01 #280
Learning Objective: 01-07 Perform basic calculations for the Goods and Services Tax; Harmonized Sales Tax; provincial sales tax; and real property tax.
Source: Test bank
Topic: Basic Mathematics
Type: MC

281. If the mill rate increases by 0.25 mills, what will be the dollar increase in property taxes on a house assessed at $380,000?

A. $950.00

B. $0.95

C. $9500

D. $95.00

E. $9.50

Accessibility: Keyboard Navigation
Difficulty: Easy
Jerome - Chapter 01 #281
Learning Objective: 01-07 Perform basic calculations for the Goods and Services Tax; Harmonized Sales Tax; provincial sales tax; and real property tax.
Source: Test bank
Topic: Basic Mathematics
Type: MC

282. Fred has an annual salary of $40,000.00. He is paid semi-monthly and his regular workweek is 40 hours. What is his regular salary per pay period?

A. $1538.46

B. $1458.33

C. $3076.92

D. $1666.67

E. $3333.33

Accessibility: Keyboard Navigation

Difficulty: Easy

Jerome - Chapter 01 #282

Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.

Source: Test bank

Topic: Basic Mathematics

Type: MC

283. A class of 25 students wrote a term test. The results out of 30 marks are as follows:

Score:	10	15	20	25	30
Number of Students:	2	3	10	6	4

What was the average score on the test?

A. 20

B. 25

C. 22

D. 21.4

E. 17.5

Difficulty: Medium

Jerome - Chapter 01 #283

Learning Objective: 01-06 Calculate the simple average or weighted average (as appropriate) of a set of values.

Source: Test bank

Topic: Basic Mathematics

Type: MC

284. An investor purchased shares of Acme Company as follows: 500 shares @ $10 per share, 10,000 shares @ $6.00 per share, and 1000 shares at $4.00 per share. What is the investor's average cost per share?

A. $7.00

B. $6.00

C. $6.67

D. $23,000

E. $6.50

Accessibility: Keyboard Navigation
Difficulty: Medium
Jerome - Chapter 01 #284
Learning Objective: 01-06 Calculate the simple average or weighted average (as appropriate) of a set of values.
Source: Test bank
Topic: Basic Mathematics
Type: MC

A municipality requires an extra $3,000,000 for its operating budget next year. The current mill rate is 8.3573 and the assessed values of properties in the municipality remains constant at $8.58 billion.

Jerome - Chapter 01

285. Calculate next year's mill rate.

A. 8.3497

B. 8.3923

C. 11.8538

D. 9.7684

E. 8.7070

Accessibility: Keyboard Navigation
Difficulty: Hard

Jerome - Chapter 01 #285

Learning Objective: 01-07 Perform basic calculations for the Goods and Services Tax; Harmonized Sales Tax; provincial sales tax; and real property tax.

Source: Test bank

Topic: Basic Mathematics

Type: MC

286. If the total of all assessed values rises by 5% over the current assessment, at what value must next year's mill rate be set?

A. 8.6903

B. 8.2923

C. 7.9923

D. 9.7684

E. 8.3906

Accessibility: Keyboard Navigation

Difficulty: Medium

Jerome - Chapter 01 #286

Learning Objective: 01-07 Perform basic calculations for the Goods and Services Tax; Harmonized Sales Tax; provincial sales tax; and real property tax.

Source: Test bank

Topic: Basic Mathematics

Type: MC

Fred is paid an annual salary of $45,800 on a biweekly schedule for a 40-hour work week and 26 biweekly periods per year.

Jerome - Chapter 01

287. What is his gross salary per pay period?

A. $1908.33

B. $1815.93

C. $1616.18

D. $1755.51

E. $1761.54

Accessibility: Keyboard Navigation

Difficulty: Easy

Jerome - Chapter 01 #287

Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.

Source: Test bank

Topic: Basic Mathematics

Type: MC

288. What is his hourly pay rate?

A. $44.44

B. $43.89

C. $47.71

D. $44.04

E. $38.76

Accessibility: Keyboard Navigation

Difficulty: Easy

Jerome - Chapter 01 #288

Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.

Source: Test bank

Topic: Basic Mathematics

Type: MC

289. What is his total remuneration for a two-week period in which he worked 4.5 hours overtime at time-and-a-half?

A. $2058.81

B. $2230.36

C. $1858.23

D. $1953.02

E. $2051.75

Accessibility: Keyboard Navigation
Difficulty: Easy
Jerome - Chapter 01 #289
Learning Objective: 01-05 Calculate the gross earnings of employees paid a salary; an hourly wage; or commissions.
Source: Test bank
Topic: Basic Mathematics
Type: MC

Store A sold 30 units at $1.25 per unit.
Store B sold 60 units at $1.95 per unit.
Store C sold 9 units at $1.50 per unit.

Jerome - Chapter 01

290. Ignoring the quantities sold, what was the average unit selling price for the three stores?

A. $0.33

B. $1.57

C. $155.10

D. $51.70

E. $1.70

Accessibility: Keyboard Navigation
Difficulty: Medium
Jerome - Chapter 01 #290
Learning Objective: 01-06 Calculate the simple average or weighted average (as appropriate) of a set of values.

Source: Test bank

Topic: Basic Mathematics

Type: MC

291. Recognizing the quantities sold, what was the average selling price per unit?

A. $0.33

B. $1.57

C. $155.10

D. $51.70

E. $1.70

Accessibility: Keyboard Navigation

Difficulty: Medium

Jerome - Chapter 01 #291

Learning Objective: 01-06 Calculate the simple average or weighted average (as appropriate) of a set of values.

Source: Test bank

Topic: Basic Mathematics

Type: MC

c1 Summary

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