CHAPTER 1 **FORM A**   TECHNICAL MATH

NAME:_____   SECTION:_____

Perform the indicated operation

1. $(-4) + 12$ 1._____

2. $-3 - 3 + 7$ 2._____

3. $5^2 - 3(13 - 7)$ 3._____

4. $8 - 3(6 + (-2))$ 4._____

5. $\dfrac{4(-2)(3)}{(2)(-1)}$ 5._____

6. $-4^2 + 16$ 6._____

7. $\left(\dfrac{3}{4}\right)^2$ 7._____

8. $-\left(-\dfrac{2}{5}\right)^2$ 8._____

9. $\left|2(4-2)^2 - 10\right|$ 9._____

10. $\dfrac{3.25^2 + \sqrt{12}}{2(3.1)^2}$ Round to the nearest thousandth .   10._____

11. $\sqrt{2.25} + 4.1^2$ Round to the nearest hundredth.   11._____

12. Express 17,400,000,000 using scientific notation.   12._____

13. Express 0.00000043 using scientific notation.   13._____

14. Express 2.17×10^7 as an ordinary number.   14. _____

15. Add: $(7.34 \times 10^5) + (2.2 \times 10^4)$ 15. _____

16. Subtract: (5.67×10^{-4}) from (9.9×10^{-3}) 16. _____

17. Multiply: $(3.6 \times 10^5)(2.4 \times 10^3)$ 17. _____

18. Divide: $\dfrac{(1.2 \times 10^{-4})}{(4.8 \times 10^2)}$ 18. _____

19. On a recent math test a student missed 4 True/False questions worth 2 points a piece and 3 word problems worth 2.5 points each. If the total number of points possible was 100, what was the student's score?

19. _____

20. An engineer needs to find the time it will take for his new computer to do 50 billion calculations. If it takes his new computer 2.6×10^{-13} seconds to do one calculation, how long will it take to do the 50 billion calculations? Leave your answer in scientific notation.

20. _____

CHAPTER 1 **FORM B**   TECHNICAL MATH

NAME:_____   SECTION:_____

Perform the indicated operation

1. $(-5)+11$ 1._____

2. $-4-4+9$ 2._____

3. $4^2-3(13-10)$ 3._____

4. $7-3(5+(-3))$ 4._____

5. $\dfrac{5(-2)(3)}{(3)(-1)}$ 5._____

6. -5^2+25 6._____

7. $\left(\dfrac{2}{5}\right)^2$ 7._____

8. $-\left(-\dfrac{3}{4}\right)^2$ 8._____

9. $\left|3(4-6)^2-10\right|$ 9._____

10. $\dfrac{2.75^2+\sqrt{20}}{3(2.1)^2}$ Round to the nearest thousandth .   10._____

11. $\sqrt{3.5+4.3^2}$ Round to the nearest hundredth.   11._____

12. Express 14,700,000,000 using scientific notation.   12._____

13. Express 0.0000034 using scientific notation.   13._____

4   TECHNICAL MATHEMATICS, Signed Numbers

14. Express 7.12×10^5 as an ordinary number.   14. _____

15. Add: $(3.74 \times 10^5) + (3.2 \times 10^4)$ 15. _____

16. Subtract: (6.57×10^{-4}) from (9.9×10^{-3}) 16. _____

17. Multiply: $(4.3 \times 10^5)(5.2 \times 10^3)$ 17. _____

18. Divide: $\dfrac{(1.2 \times 10^{-5})}{(4.8 \times 10^{-2})}$ 18. _____

19. On a recent math test a student missed 5 True/False questions worth 3 points a piece and 2 word problems worth 3.5 points each. If the total number of points possible was 100, what was the student's score?

19._____

20. An engineer needs to find the time it will take for his new computer to do 75 billion calculations. If it takes his new computer 2.7×10^{-13} seconds to do one calculation, how long will it take to do the 75 billion calculations? Leave your answer in scientific notation.

20._____