

## 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.  $\frac{4(-2)(3)}{(2)(-1)}$  5. \_\_\_\_\_

6.  $-4^2 + 16$  6. \_\_\_\_\_

7.  $\left(\frac{3}{4}\right)^2$  7. \_\_\_\_\_

8.  $-\left(-\frac{2}{5}\right)^2$  8. \_\_\_\_\_

9.  $|2(4 - 2)^2 - 10|$  9. \_\_\_\_\_

10.  $\frac{3.25^2 + \sqrt{12}}{2(3.1)^2}$  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. \_\_\_\_\_

2 TECHNICAL MATHEMATICS, Signed Numbers

14. Express  $2.17 \times 10^7$  as an ordinary number. 14. \_\_\_\_\_

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

16. Subtract:  $(5.67 \times 10^{-4})$  from  $(9.9 \times 10^{-3})$  16. \_\_\_\_\_

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

18. Divide:  $\frac{(1.2 \times 10^{-4})}{(4.8 \times 10^2)}$  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  $2.6 \times 10^{-13}$  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.  $\frac{5(-2)(3)}{(3)(-1)}$  5. \_\_\_\_\_

6.  $-5^2 + 25$  6. \_\_\_\_\_

7.  $\left(\frac{2}{5}\right)^2$  7. \_\_\_\_\_

8.  $-\left(-\frac{3}{4}\right)^2$  8. \_\_\_\_\_

9.  $|3(4 - 6)^2 - 10|$  9. \_\_\_\_\_

10.  $\frac{2.75^2 + \sqrt{20}}{3(2.1)^2}$  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  $7.12 \times 10^5$  as an ordinary number. 14. \_\_\_\_\_

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

16. Subtract:  $(6.57 \times 10^{-4})$  from  $(9.9 \times 10^{-3})$  16. \_\_\_\_\_

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

18. Divide:  $\frac{(1.2 \times 10^{-5})}{(4.8 \times 10^{-2})}$  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  $2.7 \times 10^{-13}$  seconds to do one calculation, how long will it take to do the 75 billion calculations? Leave your answer in scientific notation.

20. \_\_\_\_\_