Name _____Section _____Date _____

Significant Figure Worksheet 1

1. Indicate the number of significant figures in each of the following.

   a. 11

   b. 0.4672

   c. 54803

2. Indicate the number of significant figures in each of the following.

   a. 9.96×10^{-5}

   b. 340,000

   c. 2.54 cm = 1inch

3. Indicate the number of significant figures in each of the following.

   a. 800.

   b. 0.000000010001

   c. 8000.003

4. Jack climbed up 8 steps to reach the second floor of the building. State the number of significant figures for the value in the statement.

5. Susan rode her bike to the end of the block in 20.07 seconds. State the number of significant figures for the value in the statement.

6. The walk-a-thon fundraiser requires participants to walk 10 miles around a track. State the number of significant figures for the value in the statement.

7. Which of the following measurements contain two significant figures?

   a. 80.09 m

   b. 20 seconds

   c. 0.00040 cm

   d. 6.02×10^{23} molecules

   e. None of these

8. Which of the following contain three significant figures?

   a. 200

   b. 0.083

   c. 14.224

   d. 0.669×10^3

   e. None of these

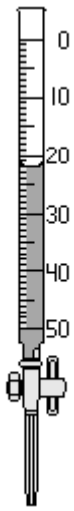
9. State the number of significant figures for each of the following.

   a. 14.21×10^{10}

   b. 0.002080

   c. 800,400

10. Using zero as your reference point, how much liquid has left the buret? Use the correct number of significant figures.



   a. 20 mL

   b. 22 mL

   c. 22.0 mL

   d. 38 mL

   e. 38.0 mL

11. Round off each of the following values to three significant figures.

    a. 7.115

    b. 8953000

    c. 2.66832×10^{-14}

12. Round off each of the following values to two significant figures.

    a. 66.412

    b. 0.00809

    c. 300.

13. Round off each of the following values to one significant figure.

    a. 54,629

    b. 0.0037

    c. 25.4×10^{4}

14. Indicate which value has a greater number of significant figures in each of the following.

    a. 0.000392 versus 0.03000

    b. 2.691×10^{-4} versus 6.0200×10^{16}

    c. 8×10^{30} versus 80

15. Indicate which value has a greater number of significant figures in each of the following.

    a. 2910 versus 250,000

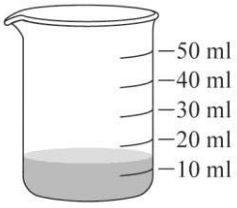
    b. 400. versus 330

    c. 25.76×10^{-3} versus 0.26105×10^{-3}

Name _____Section _____Date _____

Significant Figure Worksheet 2

1. You take 20.0 mL of water from a graduated cylinder and add it to the beaker of water below. What is the new volume of water in the beaker?



   a. 40 mL

   b. 40. mL

   c. 35 mL

   d. 35.0 mL

   e. 25.0 mL

2. Without doing the calculation, how many significant figures are in the following expression?

$$(2.01 \times 10^{-3}) \times (6.9 \times 10^{-2}) \div (8.930 \times 10^{5})$$

3. Without doing the calculation, how many significant figures are in the following expression?

$$256.09 - 50.8 + 2.768$$

4. Solve the following mathematical expression, and record the result to the correct number of significant figures.

$$5829.2 \div 8.1 \times 3.01 = ?$$

5. Solve the following mathematical expression, and record the result to the correct number of significant figures.

$$(4.861 - 1.22) \div (3.629 \times 10^{-2}) = ?$$

6. Carry out the following mathematical operation, and report the answer to the correct number of significant figures.

$$\frac{(8.223\times10^{12})(4.13\times10^{-6})}{1\times10^{4}} = ?$$

7. What is the answer to the following expression, including the correct number of significant figures?

$$(8.62 + 12.96 + 4.331 + 1.630) \times 1.9 = ?$$

8. Calculate the answer to the following expression, and report the answer to the correct number of significant figures.

$$(12.396 \div 4.61) - (1.72 \times 0.43) = ?$$

9. Calculate the answer to the following expression, and report the answer to the correct number of significant figures.

$$\frac{\left(5.769\times10^{-2}\right)}{\left(8.3\times10^{-3}\right)} + \frac{\left(4.1\times10^{-1}\right)}{\left(12.8\times10^{-2}\right)} = ?$$

10. A coach recorded the following heights (in inches) of each of the following players on the high school basketball team:

65.23

66.49

68.1

69.6

69.94

70.3

70.57

72.1

72.56

82.6

What is the average height (in inches) of a person on the team? Record your answer with the correct number of significant figures.