

Name \_\_\_\_\_ Period \_\_\_\_\_ Date \_\_\_\_\_

## ***Working with Significant Figures***

1. In the first blank, determine the number of significant figures for each of the listed values. In the second blank, round each value to two significant figures.

- |                   |       |       |
|-------------------|-------|-------|
| a. 459 L          | _____ | _____ |
| b. 28,000 g       | _____ | _____ |
| c. 3.582 mm       | _____ | _____ |
| d. 538,000,000 mL | _____ | _____ |
| e. 100. kg        | _____ | _____ |
| f. 28 students    | _____ | _____ |

2. Determine the sum for each equation by adding the values. Set up all equations. Final answers must be rounded to the correct number of significant figures.

a.  $23.84 \text{ g} + 13.31 \text{ g}$

b.  $37.43 \text{ m} + 4.993 \text{ m}$

c.  $2.937 \text{ mL} + 102.3 \text{ mL}$

3. Determine the difference for each equation by subtracting the values. Set up all equations. Final answers must be rounded to the correct number of significant figures.

a.  $84.49 \text{ kg} - 17.40 \text{ kg}$

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b.  $483.4 \text{ m} - 27.490 \text{ m}$

c.  $100 \text{ g} - 45.32 \text{ g}$

4. Determine the product for each equation by multiplying the values. Set up all equations. Final answers must be rounded to the correct number of significant figures.

a.  $4.83 \text{ m} \times 3.602 \text{ m}$

b.  $26.50 \text{ g} \times 4.38 \text{ g}$

5. Determine the quotient for each equation by dividing the values. Set up all equations. Final answers must be rounded to the correct number of significant figures.

a.  $50.3 \text{ mL}^2 / 4.209 \text{ mL}$

b.  $625 \text{ g}^2 / 5 \text{ g}$