

Name _____ Period _____ Date _____

Significant Figures Worksheet 3

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 and place in scientific notation.

- | | | |
|-----------------|-------|-------|
| a. 0.294000 L | _____ | _____ |
| b. 18,040 g | _____ | _____ |
| c. 7.544 mm | _____ | _____ |
| d. 8,000,050 mL | _____ | _____ |
| e. 100. kg | _____ | _____ |
| f. 0.0004284 m | _____ | _____ |

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 and placed in scientific notation.

a. $0.395 \text{ g} + 0.003153 \text{ g}$

b. $159.4 \text{ m} + 3.593 \text{ m}$

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 and placed in scientific notation.

a. $39.4403 \text{ kg} - 17.85 \text{ kg}$

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b. $276.4 \text{ m} - 0.0004490 \text{ m}$

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 and placed in scientific notation.

a. $37.83 \text{ m} \times 4 \text{ m}$

b. $86.50467 \text{ g} \times 3.66 \text{ g}$

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 and placed in scientific notation.

a. $30.3 \text{ mL}^2 / 7.992 \text{ mL}$

b. $255 \text{ g}^2 / 10 \text{ g}$