

Name _____ Period _____ Date _____

Significant Figures

I. *Solve the following problems using addition/subtraction rules. Write the calculator answer first and then the answer with the correct number of significant figures. Use units if stated in the problem.*

- a. $3.414 \text{ s} + 10.02 \text{ s} + 58.325 \text{ s} + 0.00098 \text{ s} =$ _____
- b. $1884 \text{ kg} + 0.94 \text{ kg} + 1.0 \text{ kg} + 9.778 \text{ kg} =$ _____
- c. $44.1 \text{ kg} + 8.002 \text{ kg} + 0.93 \text{ kg} =$ _____
- d. $2145.10 \text{ m} - 465.106 \text{ m} =$ _____
- e. $2.36 \text{ h} - 0.10408 \text{ h} =$ _____
- f. $8.32 \text{ g} + 9.007 \text{ g} =$ _____
- g. $45.72 \text{ cm}^3 + 82.093 \text{ cm}^3 =$ _____
- h. $800 \text{ mL} - 150 \text{ mL} =$ _____
- i. $805 \text{ g/mL} - 150 \text{ g/mL} =$ _____
- j. $855 \text{ km} - 150 \text{ km} =$ _____
- k. $8550 \text{ mg} - 1500 \text{ mg} =$ _____
- l. $8.5 \times 10^4 \text{ g} + 1.5 \times 10^4 \text{ g} =$ _____
- m. $8.5 \times 10^4 \text{ g} + 1.5 \times 10^5 \text{ g} =$ _____
- n. $8.5 \times 10^5 \text{ g} + 1.5 \times 10^4 \text{ g} =$ _____

II. *Solve the following problems using multiplication/division rules. Write the calculator answer first and then the answer with the correct number of significant figures. Use units if stated in the problem.*

- a. $21.3 \text{ cm} \times 9.80 \text{ cm} =$ _____
- b. $10.19 \text{ m} \times 0.013 \text{ m} \times 14 \text{ m} =$ _____
- c. $45 \text{ g} / 90.0 \text{ mL} =$ _____
- d. $45 \text{ g} / 90 \text{ mL} =$ _____
- e. $45.00 \text{ g} / 90.0 \text{ mL} =$ _____
- f. $45.00 \text{ g} / 90 \text{ mL} =$ _____
- g. $45.000 \text{ g} / 90 \text{ mL} =$ _____
- h. $4.5 \times 10^4 \text{ g} / 9.0 \times 10^2 \text{ mL} =$ _____
- i. $4.5 \times 10^4 \text{ g} / 9.0 \times 10^{-2} \text{ mL} =$ _____
- j. $4.5 \times 10^{-4} \text{ g} / 9.0 \times 10^{-2} \text{ mL} =$ _____
- k. $4.5 \times 10^{-4} \text{ g} / 9.0 \times 10^2 \text{ mL} =$ _____

