HW 7.5 Calculations with Significant Digits

Directions: Perform the calculations. Box/circle the final answer and include correct significant figures and units. Refer to your notes for rules. You may use a calculator.

(2pts each)

1. $56.530 \text{ g} + 14.2 \text{ g} =$

2. $48.190 \text{ L} - 7.42 \text{ L} =$

3. $27.50 \text{ cm} + 13.21 \text{ cm} + 143 \text{ cm} =$

4. $228.515 \text{ kg} - 24.70 \text{ kg} + 88.0 \text{ kg} =$

5. $44.51 \text{ cm} \times 26.15 \text{ cm} \times 17.77 \text{ cm} =$

6. $13.25 \text{ m} \times 7.25 \text{ m} \times 47.08 \text{ m} =$

7. $78.580 \text{ g} \div 15.11 \text{ mL} =$
8. \[ 5,480 \text{ mg} \div 9.90 \text{ mL} = \]

9. \[ 18,000 \text{ kg} \div 40. \text{ L} = \]

If density is mass \div volume, read the measurements below to calculate the density of each liquid. Show all work including units.

10. This volume of liquid in mL has a mass of 31 g. What is its density?

11. This volume of liquid in mL has a mass of 58.12 g. What is its density?