1. The correct number of significant figures in the number 0.002320 is:
   A. 7
   B. 6
   C. 5
   D. 4
   E. 3

2. A 600. mL container has what volume in fluid ounces? (1 L = 1.06 qt; 1 qt = 32 fl. oz.)
   A. 18.1 fl. oz.
   B. 1.99 x 10^{-2} fl. oz.
   C. 20.4 fl. oz.
   D. 1.77 x 10^{-2} fl. oz.
   E. 33.7 fl. oz.

3. Convert 66.0 °C to degrees Fahrenheit and Kelvin, respectively. °C = (°F - 32)/1.8
   A. 69 °F and 339 K
   B. 151 °F and 339 K
   C. 201 °F and -207 K
   D. 87 °F and -207 K
   E. None of the above

4. Given the calculation: 17.72-4.232-9.1 = ? What is the answer reported to the correct number of significant figures?
   A. 4.388
   B. 4.38
   C. 4.39
   D. 4.4
   E. 4.40

5. The precision of a data set is considered to be poor if:
   A. the data do not stray from the average value.
   B. the data are a set of closely spaced numbers.
   C. the data vary widely from the average value.
   D. the accuracy is low.
   E. the accuracy is high.

6. Carry out the following calculation: \([2.4 \times 10^{12}] \times (5.78 \times 10^{-31})] / (2.965 \times 10^{14})\)
7. If 168 g of an unknown liquid requires 2750 cal of heat to raise its temperature from 26°C to 74°C, what is the specific heat of the liquid?

A. 0.3 cal/g °C  
B. **0.34 cal/g °C**  
C. 0.29 cal/g °C  
D. 2.9 cal/g °C  
E. None of these

8. A plastic block has a volume of 9.9 cm³ and has a mass of 12.4 grams. Will the block float in water and why?

A. Yes, because the density of the block is 1.3 g/mL, which is less than the density of water.  
B. Yes, because the density of the block is 0.80 g/mL, which is less than the density of water.  
C. **No, because the density of the block is 1.3 g/mL, which is greater than the density of water.**  
D. No, because the density of the block is 0.8 g/mL, which is greater than the density of water.  
E. None of the above

9. An empty graduated cylinder weighs 82.450 g. When filled to 50.0 mL with an unknown liquid it weighs 110.810 g. What is the density of the unknown liquid?

F. 1.65 g/mL  
G. 2.22 g/mL  
H. 2.2 g/mL  
I. 1.7 g/mL  
J. **None of these**

10-12 Match the following:

- **C** Heterogenous Mixtures  
- **A** Physical properties  
- **B** Elements  
- **A** Boiling point, melting point, density  
- **B** Not decomposed into simpler substances  
- **C** Properties vary from region to region