1) Which of the following can be separated into two or more stable substances with a simpler formula only by doing a chemical reaction?
   a) an element  
   b) a compound  
   c) a homogeneous mixture  
   d) a heterogeneous mixture

2) A measuring tape is marked off in such a way that its smallest scale markings are centimeter marks (hundredths of a meter). Four students measure a board with the same measuring device and give the following measurements. Which is to the correct number of significant digits?
   a) 2.1 m  
   b) 2.13 m  
   c) 2.128 m  
   d) 2.1282 m  
   e) none of these

3) Which of the following measurements is not equivalent to the other three
   a) 32 °F  
   b) 273 K  
   c) 0 °C  
   d) 0°F

4) Define the following term:
   Hypothesis-
   Intensive property-

5) How many significant digits are present in each of the following numbers
   0.00003900         
   90400.0            
   3.310 \times 10^3

6) Complete the following conversions
   a) Convert 55.52 mm to inches  
   b) Convert 48.5 °F to °C  
   c) Convert 21.7 square yards to square feet  
   d) Convert 547.2 cg to kg

7) An irregular shaped object has a density of 3.62 g/cm³. If the object is weighed on a balance and the mass is found to be 643.552 grams, what is the volume of the object?