**QUIZ: Scientific Method, Accuracy & Precision, SigFigs and Scientific Notation**

1. **On the target below, draw three X’s that are accurate and three dots that are precise. (2 pts)**
2. **In the “Experiment” part of the scientific method, there are several steps. NAME and EXPLAIN each of following steps. (14 pts)**

**I.**

**II.**

**III.**

**IV.**

**V.  
  
VI.**

**VII.**

1. **Round the following to 2 significant figures. (5 pts)**
   1. **3.4609 \_\_\_\_\_\_\_\_\_**
   2. **653 \_\_\_\_\_\_\_\_\_\_**
   3. **0.04608 \_\_\_\_\_\_\_\_\_\_**
   4. **9821 \_\_\_\_\_\_\_\_\_\_\_**
   5. **1.08 \_\_\_\_\_\_\_\_\_\_\_**

1. **How many significant figures are in the following? (5 pts)**
   1. **980000000000 \_\_\_\_**
   2. **98734.100 \_\_\_\_**
   3. **0.0008483 \_\_\_\_**
   4. **29 \_\_\_\_**
   5. **1.00 \_\_\_\_**
2. **Write the following in scientific notation (5 pts)**
   1. **6078.3**
   2. **0.00283**
   3. **998000282.0**
   4. **0.345**
   5. **6.0 x 1015**
3. **Write the following in standard notation (5 pts)**
   1. **6.0 x 103**
   2. **8.22 x 10-4**
   3. **62.0 x 101**
   4. **1.0 x 1015**
   5. **2.345 x 10-8**
4. **Define accuracy and precision. WHY do they matter in chemistry? (3 pts)**
5. **What is the difference between saying I have 27mL of liquid and 27.00mL of liquid? (2 pts)**