Accuracy & Precision Worksheet

Accuracy: refers to how close a measurement is to a true, accepted or target value.
Precision: Refers to the reproducibility of a series of measurements

1. The following measurements were made to determine the density of a material whose value was, according to the Handbook of Chemistry and Physics, 1.24 g/mL

Trial #1	1.20 g/mL
Trial #2	1.22 g/mL
Trial #3	1.22 g/mL

a. make a general comment on the **accuracy** of these results

b. make a general comment on the **precision** of these results

c. what may have caused these results?

2. The following measurements were made to determine the density of a material whose value was, according to the handbook of Chemistry and Physics, 1.15 g/mL

Trial #1	0.95 g/mL
Trial #2	1.16 g/mL
Trial #3	1.26 g/mL

a. make a general comment on the **accuracy** of these results

b. make a general comment on the **precision** of these results

c. what may have caused these results?

2. The following measurements were made to determine the density of a material whose value was, according to the handbook of Chemistry and Physics, 3.75 g/mL

Trial #1	4.75 g/mL
Trial #2	4.76 g/mL
Trial #3	4.74 g/mL

a. make a general comment on the **accuracy** of these results

b. make a general comment on the **precision** of these results