

Student Name: _____

Date: _____

Section 1: Multiple Choice

1. Percent error =

(Exp-Acc)/Acc x100

Acc/Exp x100

Exp x Acc x100

(Acc-Exp)/Exp x100

2. Systematic error is:

Occurs randomly

Consistently off in same direction

Only affects large samples

Removed by averaging

3. Significant figures in 0.0540:

2

3

4

5

4. Which has most significant figures?

1200

1.200

0.0012

12

5. SI base unit for amount of substance:

Gram

Mole

Liter

Kelvin

Section 2: Short Answer

1. Student measures aluminum density as 2.58 g/mL; accepted is 2.70. Calculate percent error.

2. Give one example each of systematic and random error in a mass-measurement lab.

3. Why do scientists use significant figures when reporting measurements?

Multiple Choice Answers:

1. A
2. B
3. B
4. B
5. B