

Name: \_\_\_\_\_

**Unit 4 Day 5 – Percent Error Classwork**

1. Estimate how many blue M&Ms are in the jar: \_\_\_\_\_.

The actual amount is \_\_\_\_\_.

How far away from the actual value was your estimate?

This is called the absolute error.

What percent of the actual value is the absolute error?

This is called the percent error.

2. Estimate (in centimeters) the height of Charlie Brown: \_\_\_\_\_.

The actual height is \_\_\_\_\_.

What is the absolute error?

What is the percent error?

3. Close your eyes to estimate when 60 seconds have elapsed.

When you open your eyes, write down how many seconds have actually elapsed: \_\_\_\_\_

What is the absolute error between the actual value and your estimated amount?

What is the percent error?

4. A police officer uses a radar gun to clock a passing Ferrari at 131 miles per hour (mph). The Ferrari was really speeding at 127 mph.

Calculate the absolute error in the officer's measurement.

Calculate the percent error in the officer's measurement.

5. Two people: Reginald and Dwayne, measure their weight in the morning by using typical bathroom scales, instruments that are famously unreliable. The scale reports that Reginald weighs 237 pounds, though he actually weighs 256 pounds. Dwayne's scale reports his weight as 117 pounds, though he really weighs 129 pounds.

Whose measurement incurred the greater absolute error?

Whose incurred a greater percent error?

6. Sam performed an experiment to find how long it takes an apple to drop 2 meters. The theoretical value (using physics formulas) is 0.64 seconds. But Sam measures 0.62 seconds.

What is the absolute error?

What is Sam's percent error?

7. Write a summary or an equation that explains how to find percent error: