PHYSICAL SCIENCE **NAME** _____
PERCENT ERROR
ACCURACY AND PRECISION

PERCENT ERROR

The reason that we calculate percent error is to determine how much error there is in our own calculations or data.
To find your percent error, you will need to use the following equation:

$$\% \text{ error} = \frac{|\text{Accepted} - \text{Measured}|}{\text{Accepted}} \times 100$$

The **accepted value** is the true or correct value (what you SHOULD have gotten).

The **measured value** is what YOU measured or calculated yourself.

Notice that the numerator is in absolute value form. You should not have any negative percent error values.

Sample problem:

A student buys a rope at the store. The label on the packaging says that the rope is 2.15 meters in length. The student measures the rope as 1.85m. What is the student's percent error?

Your practice:
You MUST show your work to receive credit. Circle your final answer.

1. A 250.0 gram block is placed on a balance. The balance measures the mass of the block as 243.9 grams. What is the percent error of the block?

2. A teacher calculates the molar mass of sodium hydroxide as 37 g/mol. The true molar mass of sodium hydroxide is 40 g/mol. Find the teacher's percent error.

3. There are 34 questions on a test. John answers 22 of them correctly. What is John's percent error?