Name: _____ **Measurement/Length**

What is Measurement?

A measurement is a number that shows the size or amount of something relative to (compared to) some standard unit.

We can measure many things. But most commonly we measure Length, Volume, Mass (weight) and Time.

We can measure things using either of two different measurement systems—the Metric (International) System or the Customary (English) System. The two systems use different standard units of measurement.

The Customary System is the most widely used system in the United States. Most other countries use the Metric System.

Length (Metric):

Length is a measure of how long things are, how tall they are, or how far apart are.

The standard *metric* unit of length is the **meter**. The word meter is often abbreviated (shortened) and written with just the letter **m**.

1 meter (**1m.**) is about the length of a baseball bat, or the length of a standard guitar. The height of a door is about 2 meters (2m).

The metric system uses **kilometers** to measure long distances.

1 kilometer (**1 km**) is equal to 1,000 meters. (***1 km = 1,000 m***)

Because the metric system is based on the number 10, it is easy to change smaller units to larger ones and larger ones to smaller ones.

For example, to change *kilometers to meters*, you multiply by 1,000. Why?—because each kilometer is 1,000 meters.

Note: When you change from measuring in *kilometers* to measuring in *meters*, you will be using a smaller unit to measure with, so you need more of them to span the distance being measured.

Examples:

Let's change ***8 km*** to meters.

Each km is 1,000 meters, so **8 km** = 8 x 1,000 m = **8,000 m**

Your turn:

3 km = _____ m 10 km = _____ m 25 km = _____ m

Name: _____ **Measurement/Length**

Now, let's try changing ***5 km 236 m*** to meters.

First we change the 5 km to meters → 5 x 1,000 m = 5,000 m.

Next we add the 236 m onto the 5,000 m.

5,000 m + 236 m = **5,236 m**

Your turn:

1. How many meters is ***2 km 306 m***?

2. How many meters is ***11 km 133 m***?

3. Friday, Julio ran ***1 km 500 m*** after school and another ***3 km 650 m*** at track practice. How many meters did he run altogether?

4. On Saturday, John rode **5 km 600 m** on his bike. On Sunday, he rode **2 km** less than he did on Saturday. Altogether, how far (how many meters) did he ride on both days?