**Guided Reading: Significant Figures in Calculation** Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Pg. 68-71

1. If you used a calculator to find the area of a floor that measures 7.7 meters by 5.4 meters, the calculator would give an answer of 41.58 square meters.

But your original measurements 7.7 m and 5.4 m only have \_\_\_\_\_\_\_\_\_\_\_\_\_ significant figures.

As a result, your calculator answer must be \_\_\_\_\_\_\_\_\_\_\_\_\_\_ and also reported to \_\_\_\_\_\_\_ sig. figs.

1. Rule: In general, a calculated answer cannot be:
2. The calculated answer must be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to make it consistent with the measurements from which it was calculated.

**Rounding:**

1. To round a number, you must first decide:

**Round off each measurement to the number of sig. figs. shown. Then write your final answer in scientific notation**

1. The number 314.721 m has four significant figures = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. The number 0.001775 m has two significant figures = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

7. 7654 has two sig.figs. = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Round off each measurement to 3 significant figures. Then write your final answer in scientific notation**

1. 87.073 meters = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. 4.3621 x 108 m = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. 0.01552 meters = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. 9009 meters = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. 1.7777 x 10-3 m = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. 629.55 m = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Addition and Subtraction: Pg. 70**

1. The answer to an addition or subtraction calculation should be:
2. Use your calculator and complete the **Sample Problems 3.5** – a,b, and #8 (a-d) below.

You must write out the problem and provide the answer with the correct sig. figs.

**Multiplication and Division: Pg. 70**

1. In calculations involving multiplication and division, you need to:
2. Use your calculator and complete the **Sample Problems 3.6** (a-d) and #10 (a-c) below.

You must write out the problem and provide the answer with the correct sig. figs.