

Name \_\_\_\_\_

## Learning Significant Figures

Word Problem (Significant Figures in Percent Error).

1) A student measures the length of a metal rod to be 12.5 cm, but the actual length is 12.8 cm. What is the percent error?  <b>2.34%</b>	2) The actual weight of an object is 150.0 grams, but a scale measures it as 148.5 grams. What is the percent error?  <b>1.0%</b>
4) A thermometer shows a temperature of 98.2°F, but the actual temperature is 98.6°F. What is the percent error?  <b>0.41%</b>	4) A student calculates the volume of a cylinder to be 250.5 cm <sup>3</sup> , but the actual volume is 255.0 cm <sup>3</sup> . What is the percent error?  <b>1.76%</b>
5) A car's speedometer reads 62.0 mph, but the actual speed is 60.0 mph. What is the percent error?  <b>3.33%</b>	6) An experiment yields a mass of 3.445 grams, while the actual mass is 3.500 grams. What is the percent error?  <b>1.57%</b>
7) The predicted yield of a chemical reaction is 85.6 grams, but the actual yield is 84.0 grams. What is the percent error?  <b>1.87%</b>	8) A recipe calls for 500 mL of water, but 490 mL was used. What is the percent error?  <b>2.00%</b>