

**Chemistry I**  
**Uncertainty in Measurement Activity**

Name \_\_\_\_\_

Problem: How is it determined where to round off a calculated answer?

Materials:

- ✓ Index Card
- ✓ Three “nerd” rulers
- ✓ Calculator

Activity:

1. Measure the length and width of an index card with the blue nerd ruler. Remember our rule for using a ruler. Record your data below.
2. Calculate the area of the whiteboard.
3. Repeat steps 1-2 using the pink nerd ruler, then the gold nerd ruler.

Data:

	Length	Width	Area
Blue Ruler			
Pink Ruler			
Gold Ruler			

Analysis of Data:

1. Find 5 other people and fill in the table below with their Area calculation.

Person	Blue Ruler Area	Pink Ruler Area	Gold Ruler Area
1. Me			
2.			
3.			
4.			
5.			
6.			
Uncertainty			
Correctly Reported Area			
Number of Significant Figures			

Rules for determining **significant figures** in a measurement.

1.

2.

3.

4.

Rules for significant figures when ADDING and SUBTRACTING.

Rules for significant figures when MULTIPLYING and DIVIDING.