

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Period: \_\_\_\_\_

Assignment Number: \_\_\_\_\_

### Challenge Questions for PS 2 (Sinking the Straw)

1. If you were able to predict the quantity of BB's necessary to sink the straw to any desired depth, explain how you made your predictions.
  
2. If you were unable to make a prediction, follow these steps:
  - A. Look at your data on the length of straw below the surface of water and the quantity of BB's necessary to sink the straw.
  - B. Are there any relationships or connections between the length of straw below the surface and the quantity of BB's? That is, does the quantity of BB's seem to have any effect on the length of straw below the surface of the water? If so, what is the relationship?
  
3. Predict the quantity of BB's needed to sink 8 cm and 9 cm of the straw.
  
4. Find the width ( $\leftarrow-\rightarrow$ ) of this sheet of paper. \_\_\_\_\_ mm = \_\_\_\_\_ cm = \_\_\_\_\_ m
5. Find the length ( $\updownarrow$ ) of this sheet of paper. \_\_\_\_\_ mm = \_\_\_\_\_ cm = \_\_\_\_\_ m
6. Find the diagonal of this sheet of paper. \_\_\_\_\_ mm = \_\_\_\_\_ cm = \_\_\_\_\_ m