

Bombs Away!

The purpose of this lab is to hit your tumble buggy with a falling object (pencil). Your tumble buggy will be moving at a steady pace below you. You will drop your pencil from a prescribed height (.91m tall). You will be positioned at _____m from the tumble buggy's starting location. You need to calculate at what time you should drop the pencil in order to hit your tumble buggy.

Picture: Draw a picture of the lab and label all pertinent variables, even if you don't currently know the values.

Knowns and Unknowns: Write down all your knowns and unknowns and label whether you know them, need to know them, or can calculate them. Also indicate what you are ultimately solving to successfully hit your tumble buggy.

Equations: List (but don't yet solve) the equations you should use to solve, and for what you are going to use them to solve.

Calculations: Show all your calculations below. Make sure to label each calculation with what it is you are looking for.

Results: How long after the tumble buggy gets to the starting point should you release the pencil?

Conclusion: Write a *paragraph* or two that answers the following questions *in detail*.

- What was the purpose of the lab?
- How did you go about accomplishing the purpose (be detailed and make sure to talk about the calculations you did)?
- Were you successful and why do you think you were or were not?
- What errors were present in this lab (be detailed; don't just say "human error").