## Problem

My friend who takes physics doesn’t want to calculate the displacement of an object every time he receives the data for a personal experiment; he just wants a quick and easy solution that allows him to input his start velocity and time. In this experiment, the final velocity will always have to be 0 due to the lack of resources to calculate the speed during the experiment.

## Solution

The equations we will use in creating the code to calculate the displacement will be the basic kinematic equations. The one that will be focused on and used will be the last one

A math equations on a white background

Description automatically generated

If we use the last equation to find displacement() then we would need a start velocity(), an end velocity(), and a time period().

In our problem, we are told that the final velocity will always be therefore we can simple take the final velocity out of the equation and rewrite the equation as with that information, we can now begin solving our problem using an algorithm.

1. Ask the user for the starting velocity and save as the variable start\_Velocity
2. Ask the user for the time period traveled and save as the variable time\_
3. Multiply the created variables and then divide the result by 2
4. Save the resulting answer as answer\_Final
5. Print the answer out as “Displacement: ”