**DALUBHASAAN NG LUNGSOD NG LUCENA**

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## Identify the input and Output.

## Create a algorithm.

## Problem 1

Dr. Bean is a physicist that moved from the U.K. to the U.S. He is used to measuring distances in yards than in meters. He has asked you to create a program that will accept the initial velocity, time, and acceleration, and find an object’s displacement in yards. This is computed using the equation:

s=vit+12at2s=vit+12at2

where ***s*** is the displacement/distance (meters), ***vi***is the initial velocity (meters per second), ***a*** is the acceleration (meters per second squared) and ***t*** is the time (seconds). For example, if the initial velocity is 60 meters per second, the acceleration is 2.0 meters per second and the time is 8.0 seconds, the displacement is 112.000 meters or 122.485 yards.

Create a program that will compute for the displacement given initial velocity, acceleration, and the time.

**Note:**  
1 yard = 0.9144 meters

### ****Problem 2****

Your task is to create a program that will compute for the Body Mass Index (BMI) given the height in feet and inches, and the weight in pounds. The program should also display “You’re underweight” if the BMI is less than 18.5; “You’re overweight” if the BMI is at least 25.0; and “You’re normal” otherwise. The formula for BMI is:

BMI(kgm2)=weight(kg)(height(m))2BMI(kgm2)=weight(kg)(height(m))2

**Note:**

12 inches  = 1 foot  
1 foot = 0.3048 meters  
1 pound = 0.4535 kilogram