Lab Tast: 01 [20 Marks]

1. [5] Write a C program to solve these equation r^2 – m^2 and r^2 + u^2.

Sample Input:

Enter r, m & u: 5 3 10

Sample Output:

Result One: 16

Result Two: 1125

1. [7] Cars cruise down an expressway at V0 Engineers want to design an interchange for a deceleration of **a** over **t second**.
   1. What velocity will cars have at the end of the approach? (**V = V0 + at**)
   2. What minimum approach length will satisfy these requirments? (X = V0t + ½ at^2)

Sample Input:

Enter Velocity, Acceleration & Time: 5.25, 1.5, 10

Sample Output:

1. Final Velocity: 67.5
2. Final Distance: 127.5
3. [8] Input Birth year and Present year. Calculate Age and Status for following condition:
   1. If Difference is greater than 18 then print “AUDLT”
   2. If Difference is less than 18 then print “Not AUDLT”
   3. Else Print “Neutral”

Sample Input:

Enter Birth Year: 1991

Enter Present Year: 2021

Sample Input:

Age: 30

Status: Adult