Benito van der Merwe

3655171

PHY 322

Prac 3

Q1

1.1) I started by defining the function. Afterward I made the argument for i. the next step I introduced if else statements, where that if my value for I is not part of the first argument it would follow two separate counter arguments

1.2) Similar to the first one, but instead of a value we had the length of a string that followed if else statements.

1.3) For this question I defined a function and made a simple statement. I returned the statement and printed it. However when I printed the statement I added bool to the print statement containing my function

1.4)For this question I made a statement to check the divisibility of my value m by 10. Using the Boolean and print statements if m was divisible by 10 it would print “True”. If not it would follow the if else statement and again make use of the Boolean and print statements to print”False”.

Q3

For my own function I introduced a sin wave function. For my wave frequency, wave number, amplitude and phase constants I made use of arbitrary values.

Q4

For this question I made use of kinematics. I started off by listing my constants. Next I determined the expressions for the x,y-components of velocity. The components I would use to get the max height of the projectile. The time it takes to reach its max height is the half of the time the ball spends in flight, so by multiplying that by 2 we get the total time interval. Using the total time interval we can find the distance by getting the product of the x-component of velocity and the time interval. To draw the graph we should import mathplotlib, the x values should be an array composed of the following values, which is the velocity along the x-direction, (0, 777, 1543). The y values should be an array of (0,386, 0). The next step should be where we name the axis, the graph and plotting the function.