

Total Points 20

Total Time 30 Minutes

Student ID :-

Student Group

1. The ball is thrown with the velocity defined by the function $V = \sin(8t) + \cos(4t) - 4$, Initial position of ball is zero and find the position $P(t)$ of ball after time t using Euler. Write answer up to 4 significant digits.

Results	Time step $t=0.1$	$t=0.01$	$t=0.001$	Relative Error Assuming $t=0.0001$ most accurate.
P(2)				
P(2.9)				

2. The ball is thrown with the velocity defined by the function $V = \sin(8t) + \cos(4t) - 4$, Initial position of ball is zero and find the position $P(t)$ of ball after time t using Euler. Write answer up to 4 significant digits.

Results	Time step $t=0.1$	$t=0.01$	$t=0.001$	Relative Error Assuming $t=0.0001$ most accurate.
P(2)				
P(2.9)				