First Name _____ Last Name _____ Date ___ – ___ – ___ Period _____ Score _____
Problems.

Let t be the time, and $p(t) = 3t^3 - 2t^2 + t + 50$ be the position of an object moving along a line. **Write a problem with the programming of your choice** to calculate the average velocity over the time interval $[1, 1 + \Delta t]$ for various Δt. Complete the table below.

Δt	$\bar{v}$
1	
0.5	
0.25	
0.125	
0.0625	
0.03125	
0.015625	
0.0078125	
0.00390625	
0.001953125	
0.0009765625	
0.0004882812	
0.0002441406	
0.0001220703	
0.0000610352	

To earn credits, you have to show and run a working code snippet to the teacher. According to the table, $\bar{v}$ seems to stably approach _____ as Δt getting smaller.