Honors Precalculus with Trigonometry (OM013)
Problem Set 2

Name: _____

Please show all work because you will be graded on the clarity of your explanation as well as the correctness of your work. An answer with no work/explanation will receive zero credit.

1. A ball thrown straight upward from a height of 4ft with an initial velocity of 57ft per sec has height $h(t)$ feet after t seconds, where $h(t) = -16t^2 + 57t + 4$. What is the ball's average velocity (that is, its average rate of change in height) during the first second?

2. Determine whether the following three points are collinear:

$$(0, -8), (-3, -19) \text{ and } (2, 0)$$

3.

Give a rule for the piecewise-defined function shown below. Also provide its domain and range.