

Math 162

Quiz 5

Show all work in a neat and organized fashion. Clearly indicate your answers.
10 points possible.

1. (4 pts.) The graph below shows the path of a misfired projectile.

(a) Draw the secant line that would be used to estimate the average rate of change in height between 1 second and 3 seconds.

(b) Estimate the average rate of change in height between 1 second and 3 seconds.

(c) Convert your answer in part (b) to miles per hour. (Note: 1 mile is 5280 feet.)

2. (3 pts.) Describe the difference between average rate of change and instantaneous rate of change.

3. (3 pts.) Swap the inputs and outputs for the function below. (1) draw an input/output diagram for the swapped rule, (2) write out the swapped rule in words, and (3) determine whether the swapped rule is a function.

$R(w)$ = the first-class postal rate (in cents) of a letter weighing w ounces