

### Quiz 1

Name: \_\_\_\_\_

1. Find the average rate of change of the function  $f(t) = 2t^2$  at the basepoint  $a = 3$  with  $\Delta t = 0.5$ .

$$ARC = \frac{f(3 + \Delta t) - f(3)}{\Delta t} = \frac{2(3.5)^2 - 2(3^2)}{0.5} = 13$$

2. Find the equation of the secant line to the function in part (a).

Since  $y = f(3) = 18$  and  $m = 13$  from part (1), using  $y = 13t + b$  you will find  $b = -21$ . Answer:

$$y = 13t - 21$$

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