Name: $\qquad$ Date: $\qquad$
Learning Target \#1: F.IF.6: I can calculate, estimate, and interpret the average rate of change of a function over a specified interval.

1. Calculate the average rate of change for the functions below on the interval $[\mathbf{- 4}, \mathbf{- 2}]$
a. $f(x)=3(x-1)^{2}-5$

6 pt(s). $\qquad$
b.

2. The percent of voters between the ages of 18 and 29 that participated in each United States presidential election between the years 1988 to 2016 are shown in the table. The function $P$ gives the percent of voters between 18 and 29 years old that participated in the election in year $t$.

$$
6 \mathrm{pt}(\mathrm{~s}) .
$$

| Year | Percentage of <br> voters ages 18-29 |
| :---: | :---: |
| 1988 | 35.7 |
| 1992 | 42.7 |
| 1996 | 33.1 |
| 2000 | 34.5 |
| 2004 | 45.0 |
| 2008 | 48.4 |
| 2012 | 40.9 |
| 2016 | 43.4 |

a. Determine the average rate of change for $P$ between 1992 and 2000.
b. Pick two different values of $t$ so that the function has a negative average rate of change between the two values. Determine the average rate of change.
c. Pick two values of $t$ so that the function has a positive average rate of change between the two values. Determine the average rate of change.

## Student Reflection: IM 2 Unit 3: Quadratic Functions

For this learning target, record your points earned on the CFA, and then decide how well you understand this learning target.

| Standard | Learning Target | Points Earned | Percentage | Room to Grow? <br> (Circle yes or no.) |
| :---: | :---: | :---: | :---: | :---: |
| F.IF.6 | I can calculate, estimate, and <br> interpret the average rate of change <br> of a function over a specified interval | - <br> Out of 12 | Yes |  |

What are your strengths on this learning target? (I did well with...)

What are my areas for growth? (I am still learning...)

What is your learning goal and/or plan? (My goal/plan is to...)

1. a) $-24 \quad$ b) -4
$\begin{array}{llll}2 . & \text { a) }-1.025 & \text { b) answers will vary } & \text { c) answers will vary }\end{array}$
