## Rate of Change Homework

## YOU MAY USE A CALCULATOR

1. The table shows the cost per pound of Granny Smith apples.

| Weight (Ib) | 1 | 2 | 3 | 4 |
| :--- | :---: | :---: | :---: | :---: |
| Cost (\$) | 1.49 | 2.98 | 4.47 | 5.96 |

a. Describe the rate(s) of change shown by the data. (is it constant? Is it changing?)
b. What does the rate of change mean in terms of the situation?
2. The table shows the distance of a traveler from her destination

| Time (p.m.) | $1: 45$ | $2: 15$ | $2: 30$ | $2: 45$ | $3: 00$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Distance (mi) | 120 | 90 | 90 | 60 | 45 |

a. Graph the data on the graph to the right.
b. What is the rate of change from

2:15 p.m. to 2:30 p.m.? What does this rate of change mean?

3. The table shows Gabe's height on his birthday for five years.

| Age | 9 | 11 | 12 | 13 | 15 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Height (in.) | 58 | 59.5 | 61.5 | 65 | 69 |

During which time period did Gabe grow the fastest?
4. For each $x / y$ table, is the rate of change constant?

| $\mathbf{x}$ | $\mathbf{y}$ |
| :---: | :---: |
| 1 | 10 |
| 5 | 20 |
| 6 | 25 |
| 8 | 35 |
| 11 | 40 |


| $\mathbf{x}$ | $\mathbf{y}$ |
| :---: | :---: |
| 1 | 10 |
| 5 | 18 |
| 6 | 20 |
| 8 | 24 |
| 11 | 30 |


| $\mathbf{x}$ | $\mathbf{y}$ |
| :---: | :---: |
| 1 | 5 |
| 5 | 10 |
| 6 | 15 |
| 8 | 20 |
| 11 | 25 |

5. Guess the Rule:

| $\mathbf{x}$ | 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathbf{f}(\mathbf{x})$ | 7 | 10 | 13 | 16 | 19 |

