

# Proportional Relationships Worksheet #2

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

Date: \_\_\_\_\_ Hour: \_\_\_\_\_

**Directions:** Determine the rate of change for each function and answer the question that follows.

### Linear Relationship

### Rate of Change

a.  $y = 2x - 15$  in meters per second

Rate of Change: \_\_\_\_\_

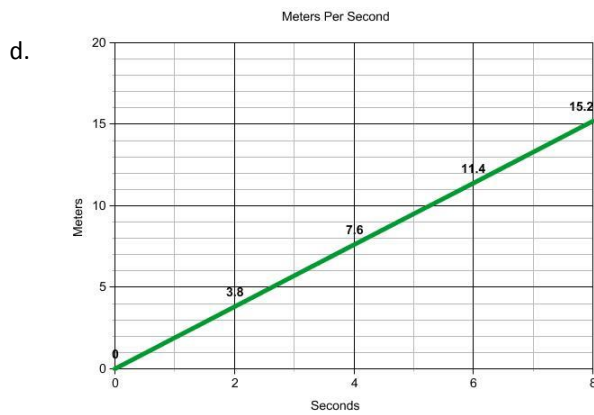
b. 21 meters in 10 seconds

Rate of Change: \_\_\_\_\_

c.

<b>Time (seconds)</b>	0	2	4	6
<b>Distance (meters)</b>	9	13.4	17.8	22.2

Rate of Change: \_\_\_\_\_



Rate of Change: \_\_\_\_\_

**WHICH LINEAR RELATIONSHIP HAS THE GREATEST RATE OF CHANGE? \_\_\_\_\_**

**Directions:** Determine the initial value for each function and answer the question that follows.

### Linear Relationship

### Initial Value

a.  $y = 8x$  in dollars per salmon steak

Initial Value: \_\_\_\_\_

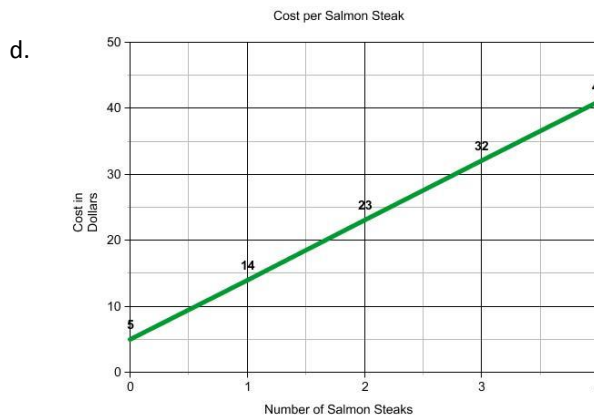
b. \$16.50 for 2 salmon steaks

Initial Value: \_\_\_\_\_

c.

<b># of Salmon Steaks</b>	0	3	6	9
<b>Cost (\$)</b>	9	32.25	55.50	78.75

Initial Value: \_\_\_\_\_

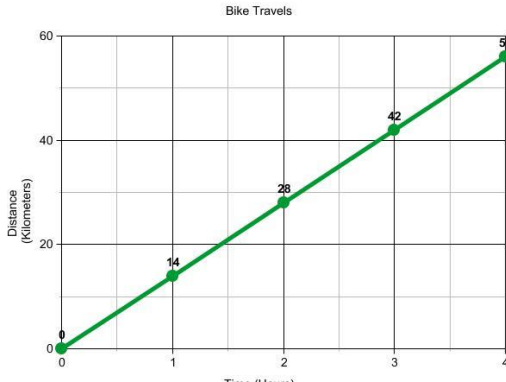


Initial Value: \_\_\_\_\_

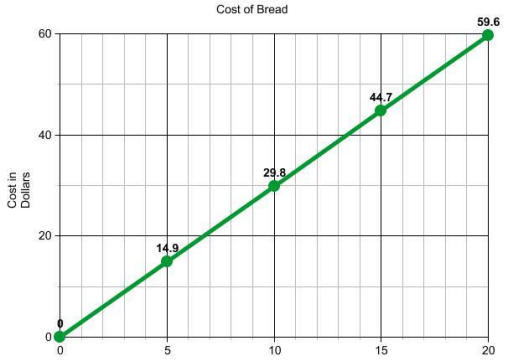
**WHICH LINEAR RELATIONSHIP HAS THE GREATEST INITIAL VALUE? \_\_\_\_\_**

## What is unit rate?

**Directions:** Determine the unit rate for each and then rank the following proportional relationships in order from 1 (highest rate of change) to 4 (lowest rate of change):

- | <u>Proportional Relationship</u>  | <u>Unit Rate</u> | <u>Order</u> |    |     |   |               |   |    |    |     |                  |       |
|---|------------------|--------------|----|-----|---|---------------|---|----|----|-----|------------------|-------|
| a. $y = 13x$ for kilometers per hour  | Unit Rate: _____ | _____        |    |     |   |               |   |    |    |     |                  |       |
| b. Teddy rides his bike 50 kilometers in 4 hours  | Unit Rate: _____ | _____        |    |     |   |               |   |    |    |     |                  |       |
| c. <table border="1" style="display: inline-table; border-collapse: collapse; text-align: center;"> <tr> <th style="padding: 2px;">Time (hrs)</th> <td style="padding: 2px;">0</td> <td style="padding: 2px;">3</td> <td style="padding: 2px;">6</td> <td style="padding: 2px;">9</td> </tr> <tr> <th style="padding: 2px;">Distance (km)</th> <td style="padding: 2px;">0</td> <td style="padding: 2px;">36</td> <td style="padding: 2px;">72</td> <td style="padding: 2px;">108</td> </tr> </table> | Time (hrs)       | 0            | 3  | 6   | 9 | Distance (km) | 0 | 36 | 72 | 108 | Unit Rate: _____ | _____ |
| Time (hrs)  | 0                | 3            | 6  | 9   |   |               |   |    |    |     |                  |       |
| Distance (km)   | 0                | 36           | 72 | 108 |   |               |   |    |    |     |                  |       |
| d.    | Unit Rate: _____ | _____        |    |     |   |               |   |    |    |     |                  |       |

**Directions:** Determine the unit rate for each and then rank the following proportional relationships in order from 1 (highest rate of change) to 4 (lowest rate of change):

- | <u>Proportional Relationship</u>   | <u>Unit Rate</u> | <u>Order</u> |       |       |   |                    |   |      |       |       |                  |       |
|--|------------------|--------------|-------|-------|---|--------------------|---|------|-------|-------|------------------|-------|
| a. $y = 2.99x$ for loaves of bread in dollars per loaf   | Unit Rate: _____ | _____        |       |       |   |                    |   |      |       |       |                  |       |
| b. Edith charges \$8.67 for 3 loaves of bread  | Unit Rate: _____ | _____        |       |       |   |                    |   |      |       |       |                  |       |
| c. <table border="1" style="display: inline-table; border-collapse: collapse; text-align: center;"> <tr> <th style="padding: 2px;"># of Loaves</th> <td style="padding: 2px;">0</td> <td style="padding: 2px;">2</td> <td style="padding: 2px;">4</td> <td style="padding: 2px;">6</td> </tr> <tr> <th style="padding: 2px;">Cost of Bread (\$)</th> <td style="padding: 2px;">0</td> <td style="padding: 2px;">5.90</td> <td style="padding: 2px;">11.80</td> <td style="padding: 2px;">17.70</td> </tr> </table> | # of Loaves      | 0            | 2     | 4     | 6 | Cost of Bread (\$) | 0 | 5.90 | 11.80 | 17.70 | Unit Rate: _____ | _____ |
| # of Loaves  | 0                | 2            | 4     | 6     |   |                    |   |      |       |       |                  |       |
| Cost of Bread (\$)   | 0                | 5.90         | 11.80 | 17.70 |   |                    |   |      |       |       |                  |       |
| d.    | Unit Rate: _____ | _____        |       |       |   |                    |   |      |       |       |                  |       |