REVIEW: Direct Variation


Name $\qquad$

## Visual Model

For positive values of $x$ and $y$, as $x$ increases, $y$ increases.

$$
y=\frac{1}{2} x
$$



## Skill Example

1. Equation: $y=2 x$

Table:

| $\boldsymbol{x}$ | 0 | 1 | 2 | 3 | 4 | 5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\boldsymbol{y}$ | 0 | 2 | 4 | 6 | 8 | 10 |

Words: $y$ is twice the value of $x$.

## Application Example

2. The amount $y$ of gasoline a car uses is $\frac{1}{20}$ times the number $x$ of miles it travels. Make a table to show this relationship.

| $\boldsymbol{x}$ | 0 | 20 | 40 | 60 | 80 | 100 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\boldsymbol{y}$ | 0 | 1 | 2 | 3 | 4 | 5 |

## PRACTICE makes PURR-FECT ${ }^{\text {TM }}$

$8: 8$ is directly proportional to $x$.

Complete the table. Then sketch the graph.
3. $y=1.5 x$

| $x$ | $y$ |
| :---: | :---: |
| 0 |  |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |

4. $y=\frac{2}{3} x$

| $x$ | $y$ |
| :---: | :---: |
| 0 |  |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |



WRITING AN EQUATION Write a direct variation equation for the table.
5.

| $\boldsymbol{x}$ | 0 | 1 | 2 | 3 | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\boldsymbol{y}$ | 0 | 3 | 6 | 9 | 12 |

6. 

| $\boldsymbol{x}$ | 0 | 1 | 2 | 3 | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\boldsymbol{y}$ | 0 | 0.4 | 0.8 | 1.2 | 1.6 |


7. WALRUS The amount $y$ that a walrus eats is directly proportional to its weight $x$. A 4000 pound walrus eats 20 pounds each day. How much does a 2000 pound walrus eat each day? $\qquad$

