

Name \_\_\_\_\_ Date \_\_\_\_\_

Tell whether each equation is a direct variation. If so, identify the constant of variation.

1.  $y = 3x$

2.  $y = 2x + 6$

3.  $2x + 3y = 6$

4.  $3x = 15$  \_\_\_\_\_

Find the value of  $\frac{y}{x}$  for each ordered pair. Then, tell whether each relationship is a direct variation.

5.

x	6	10	20
y	2	5	7
$\frac{y}{x}$			

6.

x	6	10	20
y	24	40	100
$\frac{y}{x}$			

7.

x	10	15	20
y	3	5	8
$\frac{y}{x}$			

8. The value of  $y$  varies directly with  $x$ , and  $y = 18$  when  $x = 5$ . Find  $y$  when  $x = -8$ .

9. The value of  $y$  varies directly with  $x$ , and  $x = \frac{1}{2}$  when  $y = 5$ . Find  $y$  when  $x = 20$ .

10. The amount of interest earned in a savings account varies directly with the amount of money in the account. A certain bank offers a 2% savings rate. Write a direct variation equation for the amount of interest  $y$  earned on a balance of  $x$ . Then graph.

11. Another bank offers a different savings rate. If an account with \$400 earns interest of \$8, how much interest is earned by an account with \$1800?

