NAME_____**DATE**_____**PER.**_____

DIRECT VARIATION

Determine if the relationship is a direct variation. If so, write the equation.

1.

x	10	5	2
y	12	7	4

2.

x	-6	3	12
y	4	-2	-8

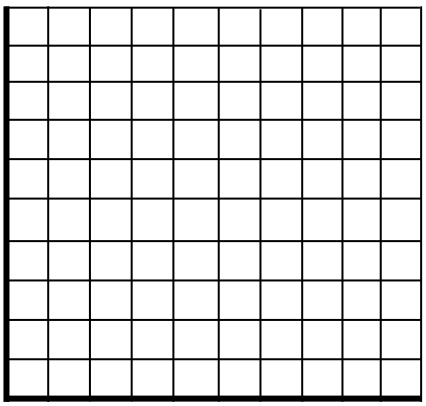
3.

x	y
2	2
4	8
6	14

4.

x	y
2	0.8
5	2
20	8

5. While on his way to school, Norman saw that the cost of gasoline was $3.00 per gallon. Write a direct variation equation to describe the cost *y* of *x* gallons of gas. Then graph.



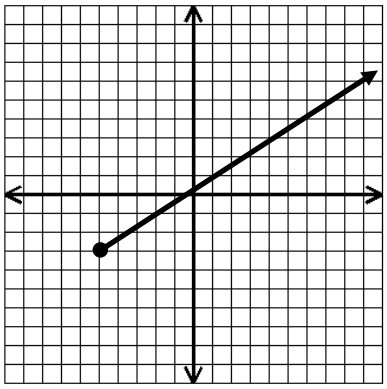
6. The area a painter can paint varies directly with the amount of time he works. One morning, he painted 200 ft^2 between 8:00 a.m. and 1:00 p.m. Write a direct variation equation to describe the area y covered in x hours.

7. The mass of a substance varies directly with the volume of the substance. Sixty liters of the substance has a mass of 80 kilograms. What is the volume in liters of 3.2 kilograms of the substance?

_____8. If y varies directly as x, and y is 42 when x is 12, which of the following represents this situation?

A. $y = 30x$ B. $y = 54x$ C. $y = \frac{7}{2}x$ D. $y = \frac{2}{7}x$

_____9. What is the range of the graph shown?



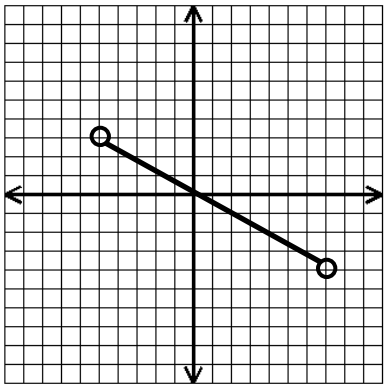
A. $x \geq -5$

B. $y \geq -5$

C. $x \geq -3$

D. $y \geq -3$

_____10. What is the domain of the graph shown?



A. $-5 < x < 7$

B. $-5 < x < 3$

C. $-4 < x < 7$

D. $-4 < x < 3$

11. If (x, -3) is a solution to the equation $3x + 6y = 3$, what is the value of x?