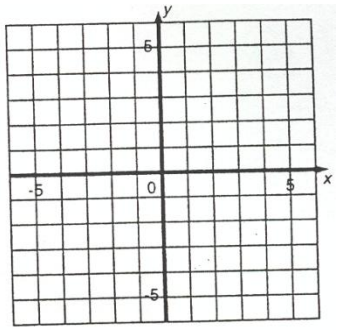
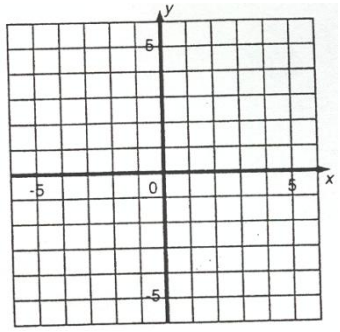
Review graphs, direct and inverse variation

Graph each equation. Make a table with a domain of { – 2, -1, 0, 1, and 2 }.

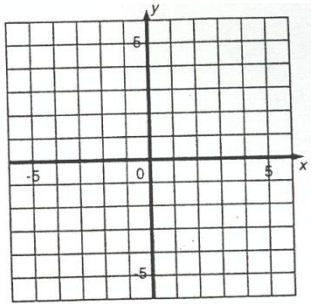
1. $y = -\frac{1}{2}x + 2$



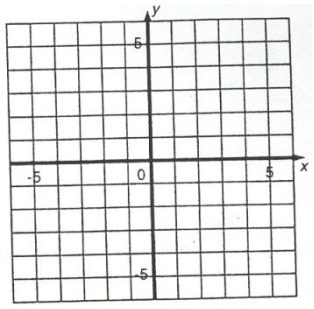
2. $y = -3x$



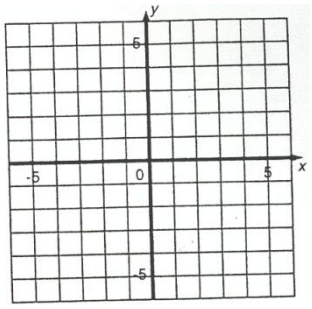
3. $2x + y = 2$



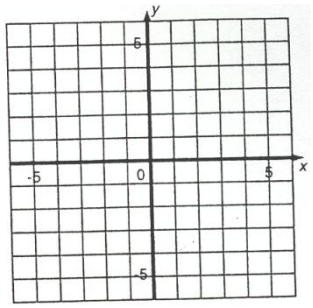
4. $y = |x| - 3$



5. $y = x^2 - 3$



6. $y = -2x + 2$



Determine if each equation is a <u>direct variation</u>. If it is, find the constant of variation.

7. $2y = 5x + 1$

8. $5x - 6y = 0$

9. $2x + y = 2$

Write an equation of the <u>direct variation</u> that includes the given point.

10. (12, -8)

11. (10, 5)

12. (-4, 6)

The ordered pairs below are for the same <u>direct variation</u>. Find the missing value.

13. (2,5) and (x, 15)

14. (- 1,3) and (5, y)

15. (- 2, 4) and (x, 6)

Suppose y varies inversely with x. Write an equation for the <u>inverse variation</u>.

16. y = 6 when x = 3

17. y = 10 when x = 2

18. y = - 4 when x = - 1

Each pair of points is on the graph of an <u>inverse variation</u>. Find the missing value.

19. (6, 12) and (9, y)

20. (4, 3) and (x, 12)

21. (- 2, 4) and (x, 2)

Does each set of data in the table represent a direct or inverse variation? Write an equation to model the data.

22.

x	y
2	1
5	2.5
8	4

23.

x	y
4	15
6	10
10	6

24.

x	y
3	24
9	8
12	6

25. What is the independent variable?

26. What is the dependent variable?

27. In a direct variation or an inverse variation, what does *k* represent?