

Assignment:

Page 120 # 10, 11, 20, 21, 23 – 27, 44 – 46

Write the equation of each line in slope-intercept form.

10. parallel to $y = 3x + 4$ passing through $(0, 9)$

11. perpendicular to $y = \frac{5}{9}x + 4$ passing through $(0, -4)$

20. parallel to $y = -\frac{1}{5}x - 7$ and
through $(2, 3)$

21. perpendicular to $y = 3x$
and through $(0, 3)$

Determine if each pair of lines is parallel, perpendicular, or neither.

23. $y = \frac{1}{4}x + 9$

$y = 4x - 9$

24. $y = 5 - \frac{1}{8}x$

$y = 8x + 2$

25. $-3x + 4y = 15$

$9x - 12y = 24$

Write each linear function.

26. $f(x)$, where $f(3) = 3$ and $f(-1) = 4$

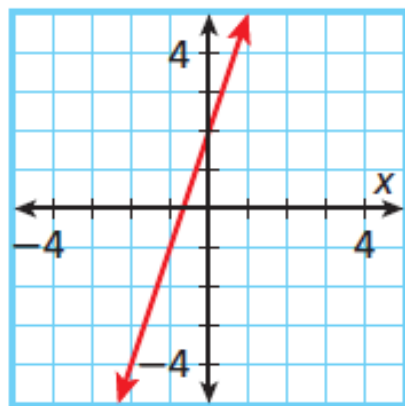
27. $f(x)$, where $f(-2) = -5$ and $f(1) = 1$

44. A carpenter determines the cost of a job by using the formula $C = 25 + 25h$, where h is the number of hours he works. He has decided to increase the amount he charges per hour to \$30. Which formula will he use now?

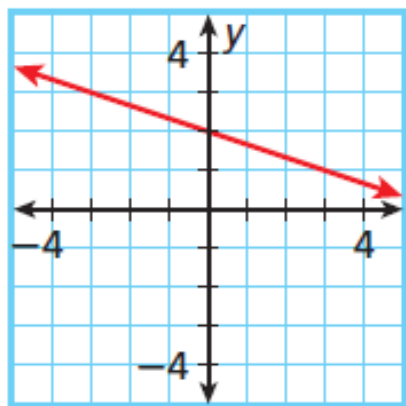
- (A) $C = 30 + 25h$ (B) $C = 30 + 30h$ (C) $C = 25 + 30h$ (D) $C = 25h + 30$

45. Which graph best shows a line perpendicular to $y = 3x - 2$?

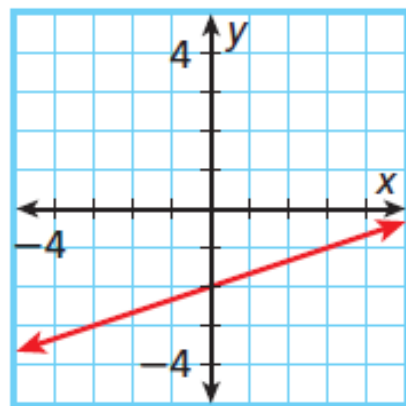
(F)



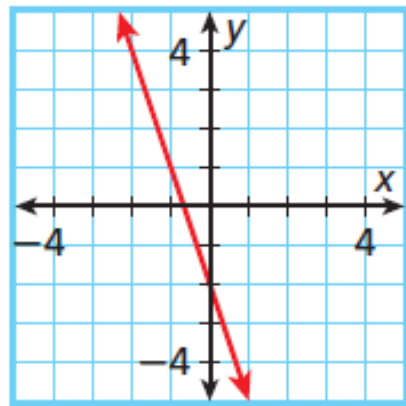
(G)



(H)



(J)



46. An equation can be used to relate the cost c of carpeting a room to the area a of the room in square feet. Which equation accurately reflects the data in the table?

- (A) $c = 2a - 125$ (C) $c = a + 275$
 (B) $c = 1.5a + 75$ (D) $c = 2a - 1500$

Carpeting Costs	
Area (ft ²)	Cost (\$)
400	675
550	900
900	1425