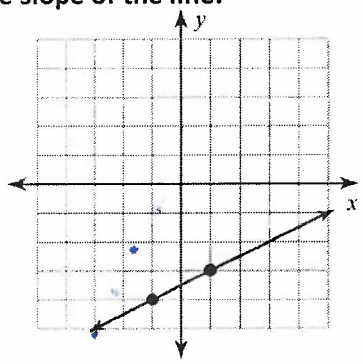
5.1-5.4 QUIZ

Name: Key

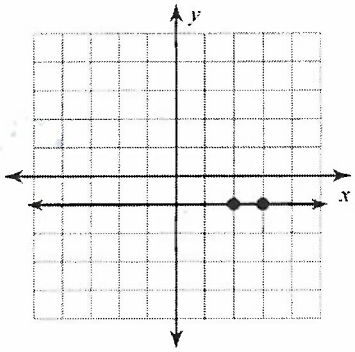
F.IF.7A

Level 2

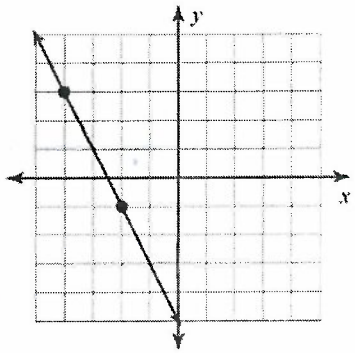
Find the slope of the line.

1. 

$\frac{1}{2}$

2. 

0

3. 

$\frac{-4}{2} =$

$-2/1$

Find the slope of the line that passes through each pair of points.

4. $\left(0, -\frac{2}{3}\right)$ & $\left(-3, -\frac{2}{3}\right)$

0

5. $(4, 0)$ & $(0, 4)$

$\frac{4-0}{0-4} = \frac{4}{-4} = -1$

6. $(-9, 5)$ & $(-3, 3)$

$\frac{3-5}{-3+9} = \frac{-2}{6} = -\frac{1}{3}$

Find the slope and y-intercept of the graph of each equation.

7. $y = \frac{2}{3}x + 7$

$m = 2/3$

$b = 7$

8. $8x + 10y = 30$

$-8x \quad -8x$

$\frac{10y}{10} = \frac{-8x}{10} + \frac{30}{10}$

$y = -\frac{4}{5}x + 3$

$m = -4/5$

$b = 3$

9. $3y = -9x - 12$

$\frac{3}{3} \quad \frac{}{3}$

$y = -3x - 4$

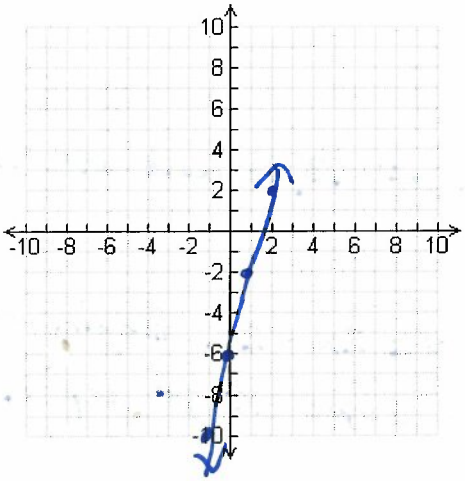
$m = -3$

$b = -4$

Level 3

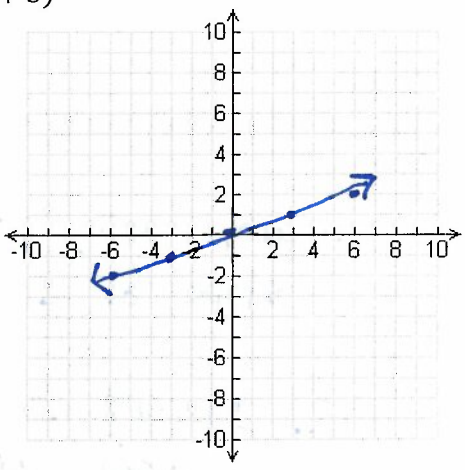
Graph each equation.

10. $y = 4x - 6$



11. $y + 1 = \frac{1}{3}(x + 3)$

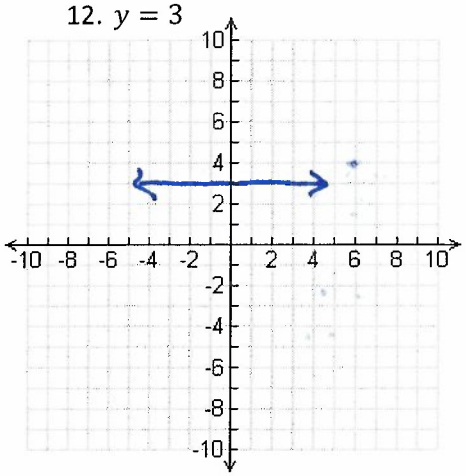
$(-3, -1)$



Level 3 continued...

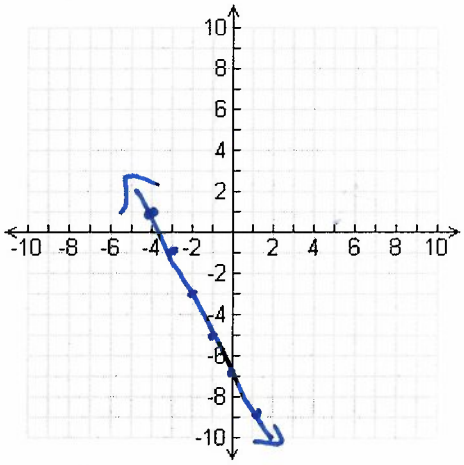
Graph each equation.

12. $y = 3$

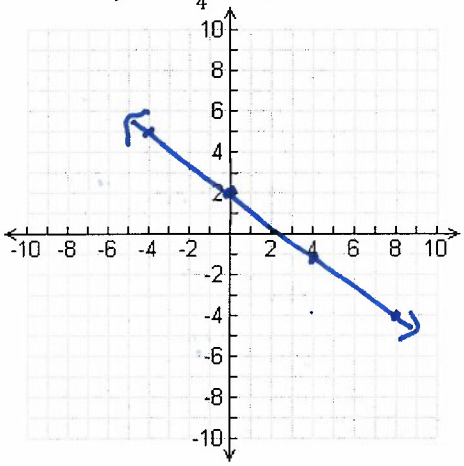


13. $y - 1 = -2(x + 4)$

(-4, 1)



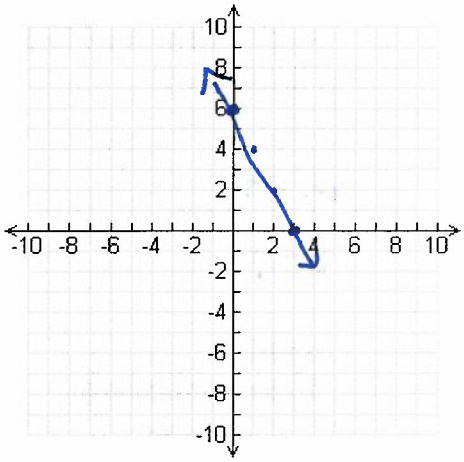
14. $y = -\frac{3}{4}x + 2$



15. $4x + 2y = 12$

x = 3

y = 6



Level 4

Describe, in detail, 2 different methods you can use to graph the equation $y - 4 = 2(x - 3)$. Which method do you prefer? Explain.

1. graph using point slope - form. Begin at (3,4) and use the slope of 2 to go up 2 over 1.

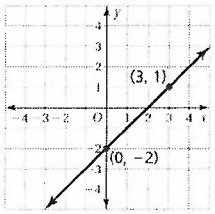
2. convert to slope intercept form. $y = 2x - 2$. Begin on the y-axis at (0, -2) then use the slope to go up 2 + over 1.

Name: Key

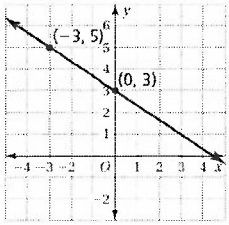
F.LE.2 ---TARGET SCORE 2.5

Level 2

Write an equation in SLOPE-INTERCEPT FORM for the line.

16. 

$y = x - 2$

17. 

$y = -\frac{2}{3}x + 3$

Level 3

Write an equation in POINT-SLOPE FORM for the line through the given point with the given slope.

18. $(5, 0)$ $m = 3$

$y - 0 = 3(x - 5)$

19. $(4, -6)$ $m = -\frac{3}{4}$

$y + 6 = -\frac{3}{4}(x - 4)$

Write an equation, in SLOPE-INTERCEPT FORM, of the line that passes through the pair of points.

20. $(1, -2)$ & $(3, 8)$

$\frac{8+2}{3-1} = \frac{10}{2} = 5$

$y - 8 = 5(x - 3)$

$y - 8 = 5x - 15$

$+8 \quad +8$

$y = 5x - 7$

21. $(2, -7)$ & $(8, 2)$

$\frac{2+7}{8-2} = \frac{9}{6} = \frac{3}{2}$

$y - 2 = \frac{3}{2}(x - 8)$

$y - 2 = \frac{3}{2}x - 12$

$+2 \quad +2$

$y = \frac{3}{2}x - 10$

Write an equation in SLOPE-INTERCEPT FORM for the line that passes through the given point and is PARALLEL to the given line.

21. $(4, 5)$ $y = -\frac{1}{2}x + 4$

$y - 5 = -\frac{1}{2}(x - 4)$

$y - 5 = -\frac{1}{2}x + 2$

$+5 \quad +5$

$y = -\frac{1}{2}x + 7$

22. $(-7, 3)$ $x = 4$

$x = -7$

Write an equation in SLOPE-INTERCEPT FORM for the line that passes through the given point and is PERPENDICULAR to the given line.

23. $(5, -1)$ $y = 4x - 7$

$y + 1 = -\frac{1}{4}(x - 5)$

$y + 1 = -\frac{1}{4}x + \frac{5}{4}$

$-1 \quad -1$

$y = -\frac{1}{4}x + \frac{1}{4}$

24. $(4, -2)$ $y = 3$

$x = 4$

Level 4

Suppose a 5-minute overseas call costs \$5.91 and a 10-minute call costs \$10.86. The cost of the call and the length of the call are related. The cost of each minute is constant.

a. What is the cost, *c*, of a call of *m* minutes duration

$\frac{10.86 - 5.91}{10 - 5} = \frac{4.95}{5} = .99$

$c = .99m + .96$

$y - 5.91 = .99(x - 5)$

$y - 5.91 = .99x - 4.95$

b. How long can you talk on the phone if you have \$12 to spend?

$12 = .99m + .96$

$-.96 \quad -.96$

$\frac{11.04}{.99} = \frac{.99m}{.99}$

$m = 11.15$ min 11 min + 9 sec