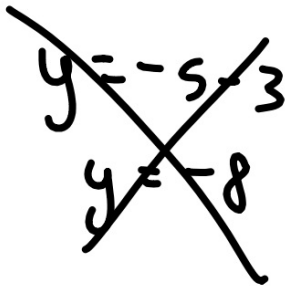
Algebra 1
Practice problems
Quiz today 4.3-4.4

Ch. 4 MCT 4.1-4.4 Tues.

Example 1

Write an equation of a line in slope-intercept form with slope −5 and *y*-intercept −3. Then graph the equation.

$y = -5x - 3$



Example 2

Write an equation of the line that passes through $(3, 2)$ with a slope of 5.

$y - 2 = 5(x - 3)$

Write an equation of the line that passes through the given points.

23. (2, −1), (5, 2)

24. (−4, 3), (1, 13)

$y - ? = m(x - ?)$

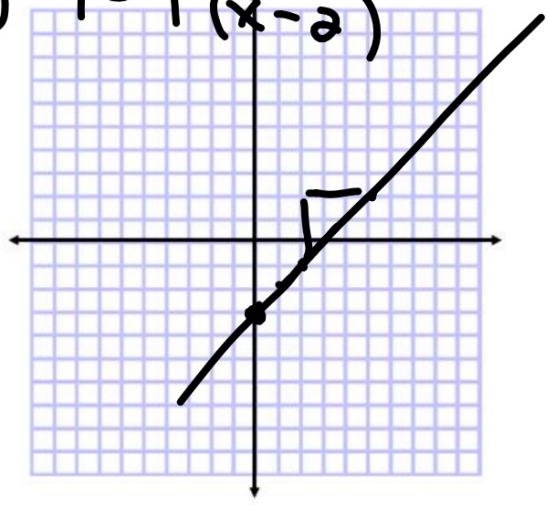
$y - 2 = 1(x - 5)$

$y + 1 = 1(x - 2)$

$y - 2 = x - 5$

$+2 \quad +2$

$y = x - 3$



14. Write an equation in point-slope form for the line that passes through the point (8, 3), $m = -2$. (Lesson 4-3)

$y - 3 = -2(x - 8)$

$y - 3 = -2x + 16$

$+3 \quad +3$

$y = -2x + 19$

$+2x \quad +2x$

$2x + y = 19$

16. Write $y + 4 = -7(x - 3)$ in slope-intercept form.
(Lesson 4-3)

23. $(0, -3)$; $y = -2x + 4$

~~parallel~~ perp.

$m = -2$

$y + 3 = -2(x - 0)$

$y + 3 = -2x$

$+2x \quad -3 \quad +2x - 3$

$2x + y = -3$

$m = \frac{1}{2}$

$y + 3 = \frac{1}{2}(x - 0)$

$y + 3 = \frac{1}{2}x$

$-3 \quad -3$

$y = \frac{1}{2}x - 3$

24. $(-4, -5)$ $-4x + 5y = -6$ perpendicular

x y

$+4x \quad +4y$

$$\frac{5y}{5} = \frac{4x}{5} - \frac{6}{5}$$

$$y = \frac{4}{5}x - \frac{6}{5}$$

$m = -\frac{5}{4}$

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

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

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

$+\frac{5}{4}x \quad -5 \quad +\frac{5}{4}x \quad -5$

$$\frac{4}{4}\cdot\frac{5}{4}x + \frac{4}{4}y = -\frac{40}{10}$$

$$5x + 4y = -40$$

Standard form: $Ax + By = C$

- in order
- integers
- no GCF (also: A must be pos.)

3) $y = 2x + 6$ $(4, 2)$

$-2x \quad -2x$

$$\frac{-2x}{-1} + \frac{y}{-1} = \frac{6}{-1}$$

$$2x - y = -6$$

A: 2 B: -1 C: -6