Algebra 1
Practice problems
Quiz today 4.3-4.4

Ch. 4 MCT 4.1-4.4 Thurs.
whiteboards

Example 1

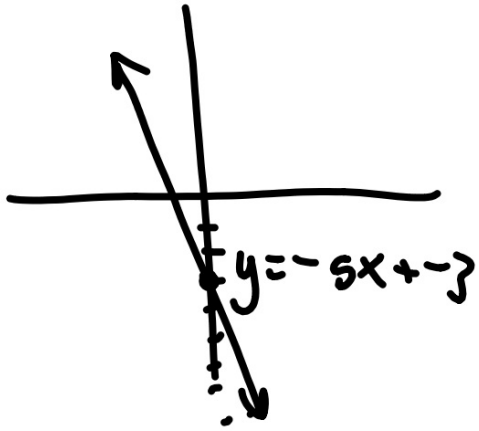
$y = mx + B$

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

m $\quad$ b

$y = -5x + -3$

$-5 = \frac{-5}{1}$



Example 2

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

(x, y)

$y = mx + B$

$2 = 5 \cdot 3 + B$

$2 = 15 + B$

$-15 \quad -15$

$-13 = B$

$y = 5x + -13$

$y = 5x - 13$

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

23. (2, −1), (5, 2)

24. (−4, 3), (1, 13)

$m = \frac{3}{3} = 1$

$y = 1 \cdot x + B$

$2 = 1 \cdot 5 + B$

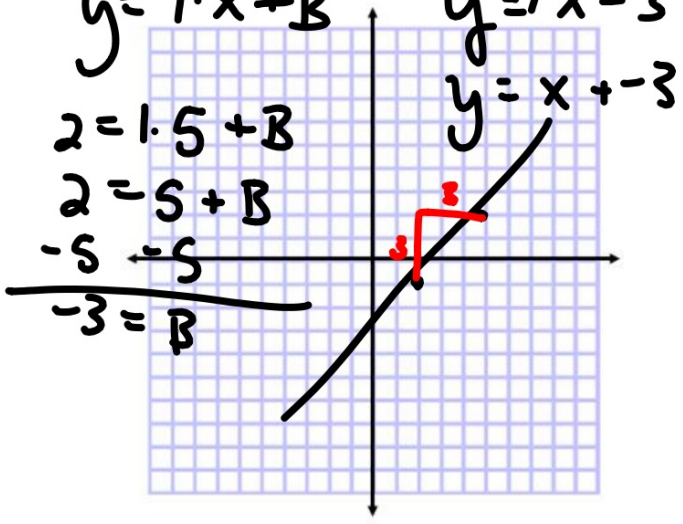
$2 = 5 + B$

$-5 \quad -5$

$-3 = B$

$y = 1x - 3$

$y = x + -3$



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

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

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

$y = mx + B$

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

(Lesson 4-3)

$y + 4 = -7x + 21$

$-4 \quad\quad\quad\quad -4$

$y = -7x + 17$

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

$m = -2 \quad (0, -3)$

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

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

perpendicular

$+4x \quad -4x$

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

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

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

$y = mx + B$

$-5 = -\frac{5}{4} \cdot -4 + B$

$-5 = 5 + B$

$-5 \quad -5$

$-10 = B$

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

Standard form:

- in order
- integers
- no GCF

$Ax + By = C$

no frac.

A is pos.

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

$$-\frac{1}{2}x \qquad -\frac{1}{2}x$$

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

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

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

$x + -2y = -6$

$A = 1 \quad B = -2 \quad C = -6$

Slope-int.

$y = mx + B$

Pt. Slope

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

St. form

$Ax + By = C$