

3.8 Pactice B

EQ: $y = mx + b$

simplified fraction

Date

Nov 2023

Period _____

Write the slope-intercept form (y=mx+b) of the equation of each line.

1) $7x + y = 7$
 $-7x \quad -7x$

ISOLATE Y

$y = -7x + 7$

2) $8x + y = -5$
 $-8x \quad -8x$

$y = -8x - 5$

3) $3x - y = -21$
 $-3x \quad -3x$

THINK ABOUT 2 STEP EQ'S

STEP 1: UNDO +, -

STEP 2: UNDO *, ÷

$-y = -3x - 21$
 $-1 \quad -1 \quad -1$

$y = 3x + 21$

4) $x - y = 3$
 $-x \quad -x$

$-y = -x + 3$
 $-1 \quad -1 \quad -1$

$y = x - 3$

5) $4x + 7y = -21$
 $-4x \quad -4x$

ISOLATE Y

STEP 1: UNDO +, -

STEP 2: UNDO *, ÷

$7y = -4x - 21$
 $7 \quad 7 \quad 7$

$y = \frac{-4}{7}x - 3$

EQ is in S/I form

6) $9x - 7y = -35$
 $-9x \quad -9x$

$-7y = -9x - 35$
 $-7 \quad -7 \quad -7$

$y = \frac{9}{7}x + 5$

$y = \frac{9}{7}x + 5$

7) $x + 4y = -24$
 $-x \quad -x$

implied -1

$4y = -x - 24$
 $4 \quad 4 \quad 4$

$y = -\frac{1}{4}x - 6$

8) $x - 2y = -16$
 $-x \quad -x$

$-2y = -x - 16$
 $-2 \quad -2 \quad -2$

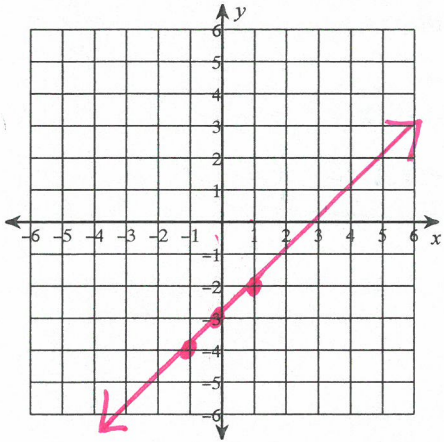
$y = \frac{1}{2}x + 8$

$y = \frac{1}{2}x + 8$

DONOT WRITE: $y = \frac{-x}{4} - 6$

Rewrite the equation of the line in slope intercept form. Then create a table to graph the line

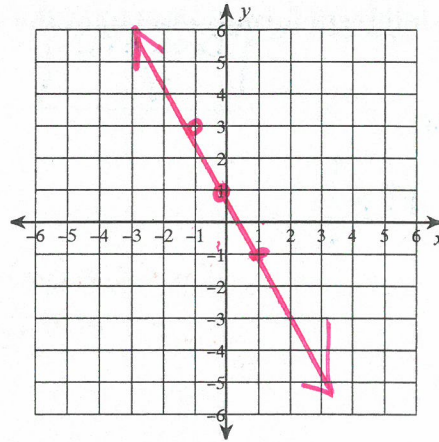
9) $x - y = 3 \rightarrow$ s/I: $y = x - 3$



Draw Long Lines w/arrows

x	-1	0	1
y	-4	-3	-2

10) $2x + y = 1 \rightarrow$ s/I: $y = -2x + 1$



x	y
-1	3
0	1
1	-1

Write the slope-intercept form ($y = mx + b$) of the equation of each line.

11) $2x - 8y = 16$

$$\frac{-2x}{-8} = \frac{-2x + 16}{-8}$$

$$-\frac{1}{4}y = -\frac{2}{8}x + \frac{16}{-8}$$

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

12) $8x - 2y = 16$

$$\frac{-8x}{-2} = \frac{-8x + 16}{-2}$$

$$-2y = -8x + 16$$

$$y = 4x - 8$$

13) $5y - 10 = 20$ **ISOLATE Y**

$$5y - 10 = 20$$

$$\frac{+10}{5} \quad \frac{+10}{5}$$

$$5y = 30$$

$$\frac{5}{5} \quad \frac{30}{5}$$

$$y = 6$$

S/I: $y = 6$ *

* S/I EQ'S DO NOT REQUIRE THE VARIABLE X.

14) $8x + 12y = 0$

$$\frac{-8x}{12} = \frac{-8x}{12}$$

$$12y = -8x$$

$$y = -\frac{8}{12}x$$

Reduce

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

