Chapter 2.4

Write an equation in slope-intercept form for the line that satisfies each set of conditions.

$$y = mx + b$$

$$q = \frac{-18}{4} + b$$

$$q = -\frac{4}{2} + b$$

$$q = -\frac{18}{4} + b$$

of
$$\chi-3y=14$$

use $y=mx+b$

to find slope

(solve for y)

$$\chi-3y=14$$

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

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

There is the slope

Same slope

Find b (y-intercept)

$$\chi=m\chi+b$$

$$\chi=m\chi+b$$

$$\chi=m\chi+b$$

$$\chi=\frac{1}{3}(-1)+b$$

$$\chi=\frac{1}{3}+\frac{1}{3}$$

$$\chi=\frac{1}{3}+\frac{1}{3}$$

$$\chi=\frac{1}{3}+\frac{1}{3}$$

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

There is the slope

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

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

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

Chapter 2.4 continued

32) passes through
$$(3,-8)$$
 and $(-3,2)$
need slope... $m = \frac{y_2 - y_1}{x_2 - x_1}$ $(3,-8)$, $(-3,2)$
 x_1 , y_1 , x_2 , y_2
 x_2 , y_3 , x_4 , x_5 , x_5 , x_5 , x_6 , x_7 , x_8 ,

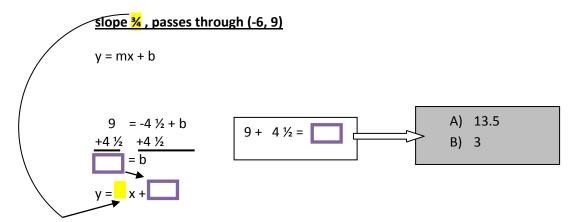
choose a point ... (3,-8)

$$y = mx + b$$
 $y = mx + b$
 $-8 = -\frac{5}{3}(3) + b$ $y = \frac{5}{3}x - 3$
 $-8 = -5 + b$
 $+\frac{5}{3} = b$

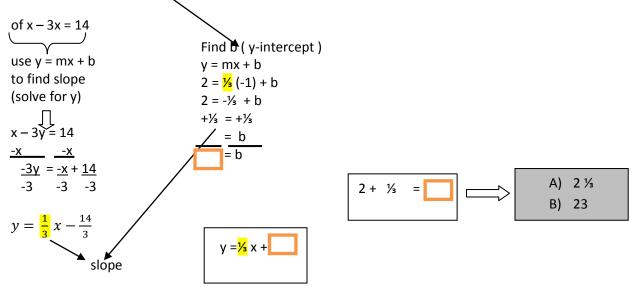
33) passes through (3,2), perpendicular to the graph of 4x-3y=12need slope... 4x-3y=12 -4x -4x -3y=-4x+12 $y=\frac{4}{3}x-4$ y=mx+b y=mx+b y=mx+b y=mx+b y=mx+b

y=-4x+6

Write an equation in slope-intercept form for the line that satisfies each set of conditions.



passes through (-1, 2), parallel to the graph of x - 3y = 14

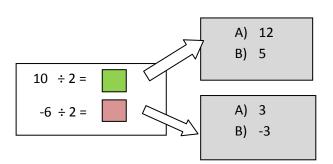


passes through(3, -8) and (-3, 2)

need slope...
$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

$$m = \frac{2 - (-8)}{-3 - 3} = \frac{2 + 8}{-6} = \frac{10}{-6} = \boxed{\ }$$





Chose a point... (3, -8)

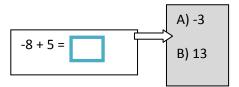
$$y = mx + b$$

$$y = mx + b$$

$$-8 = -\frac{5}{3}(3) + b$$

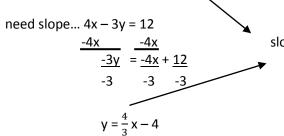






$$y = -\frac{5}{3}x + \boxed{}$$

passes through (3, 2), perpendicular to the graph of 4x - 3y = 12



slopes are opposite reciprocals



y = mx + b

$$2 = -\frac{4}{3}(3) + b$$

2 = -4 + b

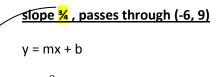


$$y = mx + b$$

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

- A) 6
- B) 8

Write an equation in slope-intercept form for the line that satisfies each set of conditions.



$$9 = \frac{3}{4}(-6) + b$$
$$9 = \frac{3}{4} + b$$

3⁄4 ● -6 =

passes through (-1, 2), parallel to the graph of x - 3y = 14

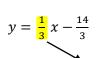


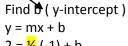
use y = mx + bto find slope

(solve for y)

$$x - 3y = 14$$

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





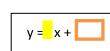
$$y = 111x + b$$

2 = $\frac{1}{3}(-1) + b$

$$2 = \square + k$$

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



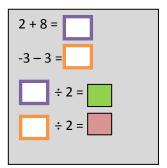


passes through(3, -8) and (-3, 2)

need slope...
$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

$$m = \frac{2 - (-8)}{-3 - 3} = \frac{2 + 8}{-6} = \boxed{\boxed{}} = \boxed{\boxed{}}$$

$$m = \frac{\square}{\square}$$



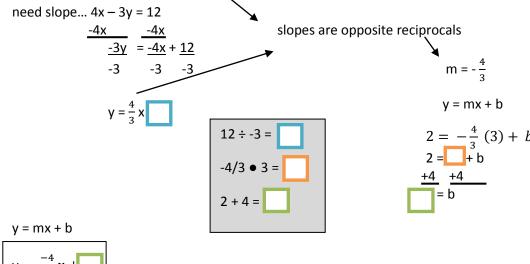
Chose a point... (3, -8)

$$y = mx + b$$

$$y = mx + b$$

$$-8 = -\frac{5}{3}(3) + b$$

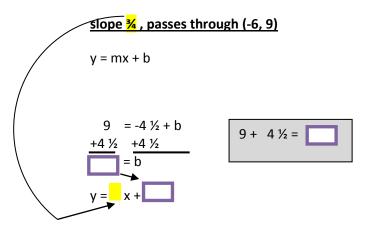
passes through (3, 2), perpendicular to the graph of 4x - 3y = 12



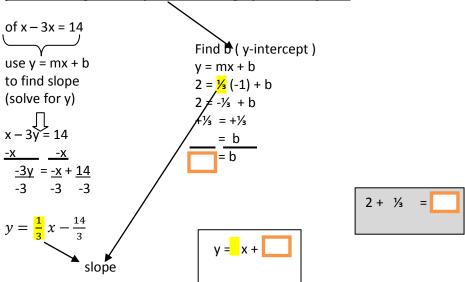
LANDSCAPING

Mr. Ryan is planning to plant rows of roses in a garden he is designing for a client. Before planting, he sketches out his plan on a coordinate grid. A row of white roses will be planted along the line with equation y = 2x + 1. A row of red roses and pass through the point (3, 5). What equation would represent the line for the row of red roses?

Write an equation in slope-intercept form for the line that satisfies each set of conditions.



passes through (-1, 2), parallel to the graph of x - 3y = 14



passes through(3, -8) and (-3, 2)

need slope...
$$m = \frac{y_2 - y_1}{x_2 - x_1}$$
 (3, -8), (-3, 2)
 $x_1 \ y_1 \ x_2 \ y_2$

$$m = \frac{2 - (-8)}{-3 - 3} = \frac{2 + 8}{-6} = \frac{10}{-6} = \boxed{\boxed{}}$$



Chose a point... (3, -8)

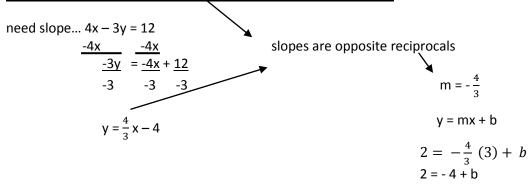
$$y = mx + b$$

$$y = mx + b$$

$$-8 = -\frac{5}{3}(3) + b$$

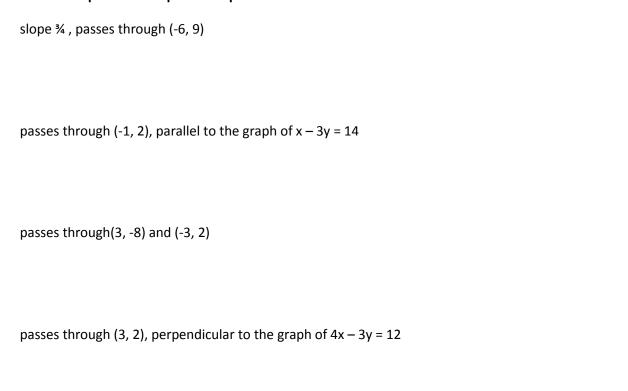
$$-8 = -5 + b$$

passes through (3, 2), perpendicular to the graph of 4x - 3y = 12





Write an equation in slope-intercept form for the line that satisfies each set of conditions.



LANDSCAPING

Mr. Ryan is planning to plant rows of roses in a garden he is designing for a client. Before planting, he sketches out his plan on a coordinate grid. A row of white roses will be planted along the line with equation y = 2x + 1. A row of red roses and pass through the point (3, 5). What equation would represent the line for the row of red roses?

Write an equation in slope-intercept form for the line that satisfies each set of conditions. y=mx+b
slope ¾ , passes through (-6, 9)
passes through (-1, 2), parallel to the graph of $x - 3y = 14$
passes through(3, -8) and (-3, 2)
passes through (3, 2), perpendicular to the graph of $4x - 3y = 12$
LANDSCAPING Mr. Ryan is planning to plant rows of roses in a garden he is designing for a client. Before planting, he sketches out his plan on a coordinate grid. A row of white roses will be planted along the line with equation y = 2x + 1. A row of red roses and pass through the point (3, 5). What equation would represent the line for the row of red roses?