Algebra 2
Review for MCT 2.1-2.4 (Wed.)

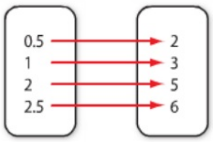
State the domain and range of each relation. Then determine whether each relation is a *function*. If it is a function, determine if it is *one-to-one*,

(Lesson 2-1)

1.

x	y
−2	4
−1	1
2	4
2	6

2.



D: −2, −1, 2

R: 4, 1, 6

Find the x-intercept and y-intercept of the graph of each equation. Then graph the equation using the intercepts. (Lesson 2-2)

3. $y = 3x - 9$ **4.** $2y - 5x = 10$

$2y - 0 = 10$

$2y = 10$

$-5x = 10$

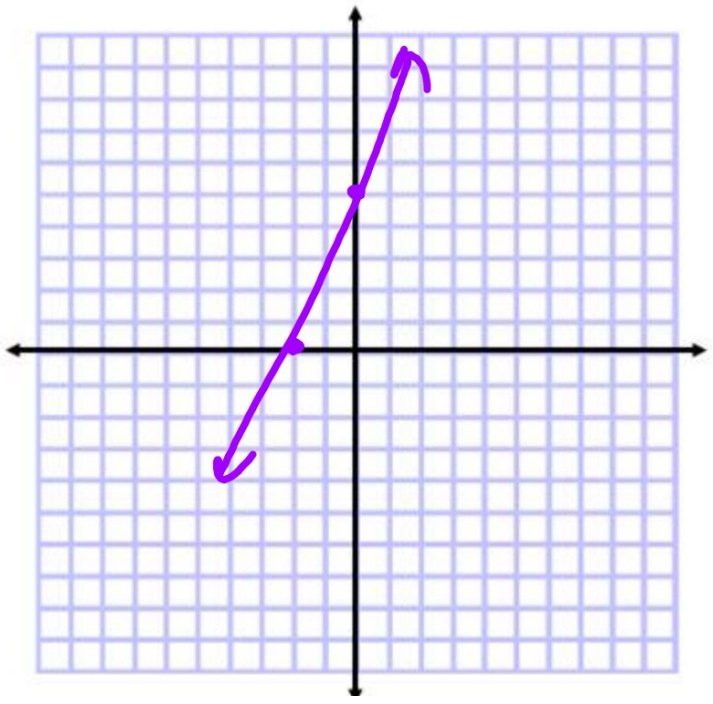
$\frac{-5}{-5} \quad \frac{-5}{-5}$

(2, 0) (0, 5)

(0, −9) (−2, 0)

$3x - 9 = 0$

$3x = 9$



7. **REPAIR** An auto mechanic charges an initial fee of $25 plus an hourly fee of $35. (Lesson 2-2)

   a. Write an equation to represent the situation.

   b. How much did it cost Stacy if the mechanic fixed her car in 3.5 hours?

$y = mx + B$

$y = 35x + 25$

$35(3.5) + 25$

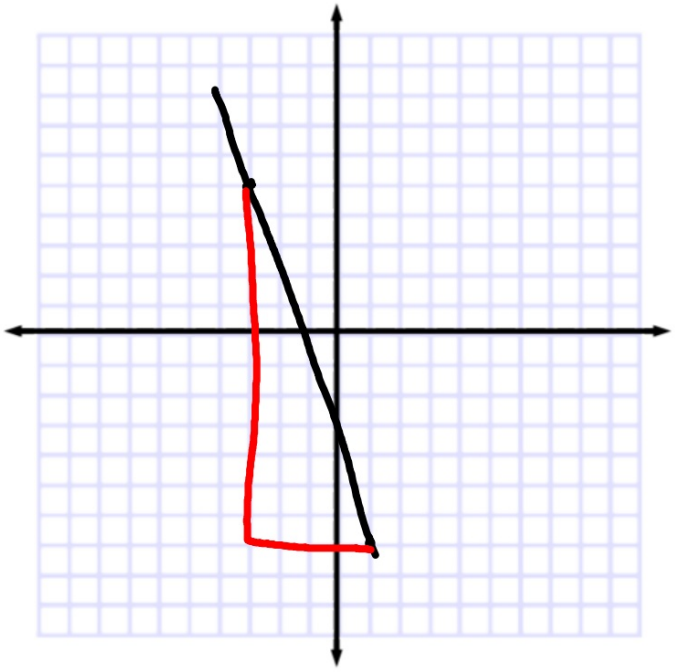
$\$147.50$

Find the slope of the line that passes through each pair of points. (Lesson 2-3)

8. $(1, -7), (-3, 5)$

$\frac{-12}{4}$

$\frac{-3}{1}$



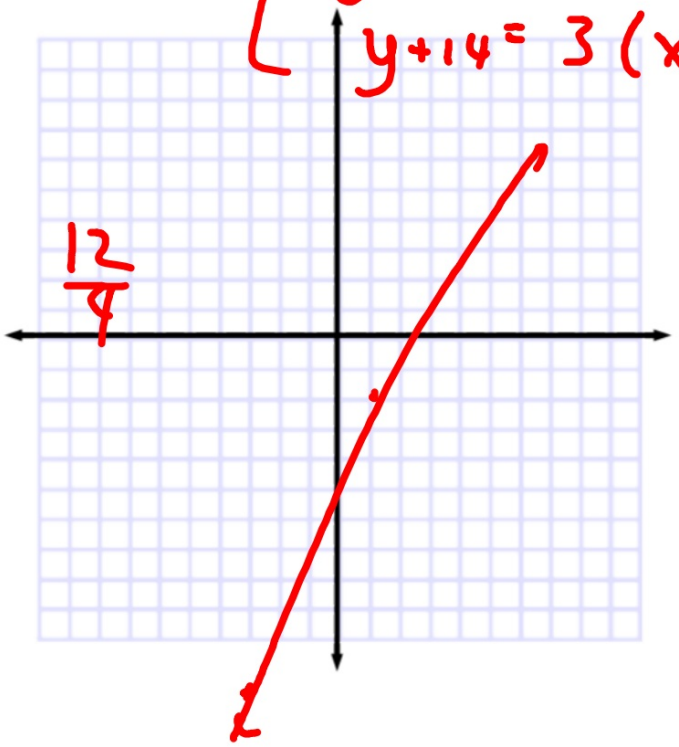
Write an equation of the line passing through each pair of points. (Lesson 2-4)

12. $(-3, -14), (1, -2)$

$y - y_1 = m(x - x_1)$

$y + 2 = 3(x - 1)$

$y + 14 = 3(x + 3)$



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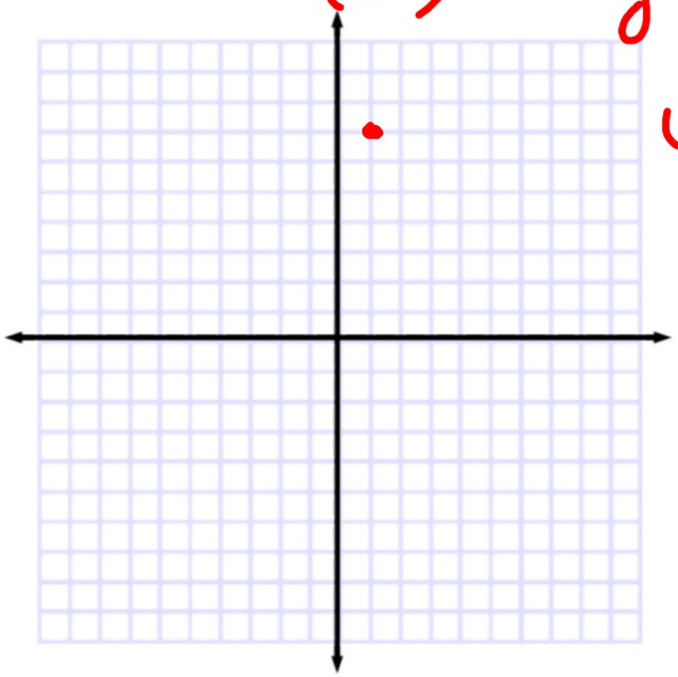
Write the equation of a line ~~parallel~~ to $y = 2x + 3$ passing through (1,7).

$m=2$ $(1,7)$ $y-7=2(x-1)$

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



Write the equation of a line perpendicular to y = -3x + 2 passing through (-6, 8)

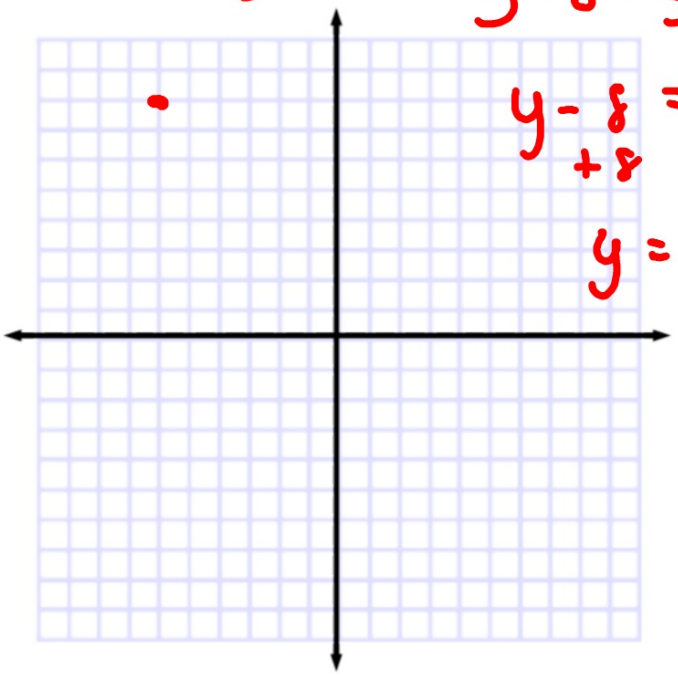
$m = \frac{1}{3}$

$y - 8 = \frac{1}{3}(x + 6)$

$y - 8 = \frac{1}{3}x + 2$

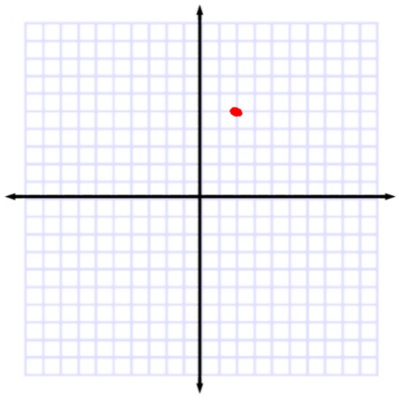
$+8 \quad +8$

$y = \frac{1}{3}x + 10$



Write the equation of a line parallel to y = -3x + 2 passing through (2,5).

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



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