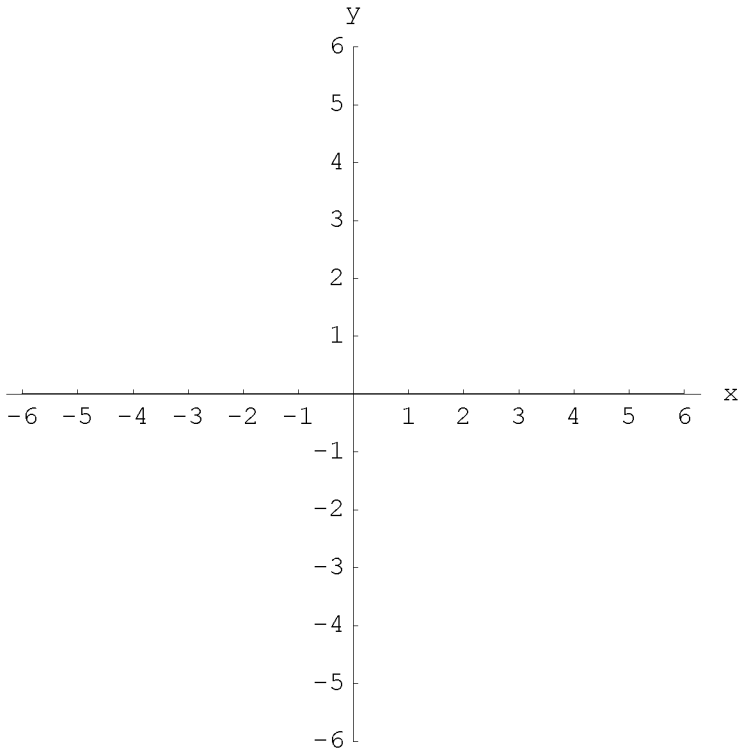
Name _____ raw scaled percent

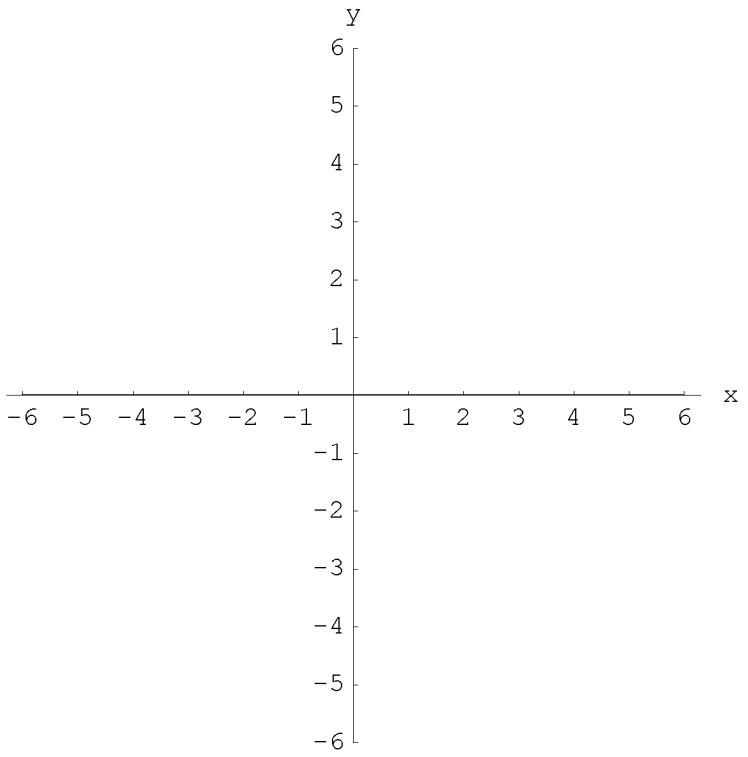
Math 8 Trimester 2 Test 2P - Practice
Coordinate Plane, Line

■ A. Plotting & Graphing

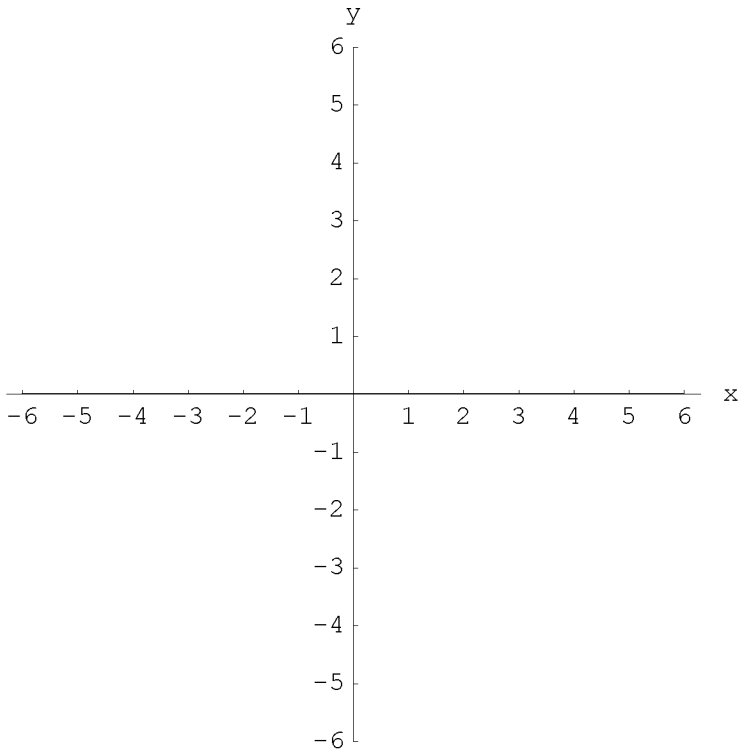
[1] Plot the points $P(3, -2)$, $Q(5, 2)$, $R(-4, -1)$, $S(-4, 2)$



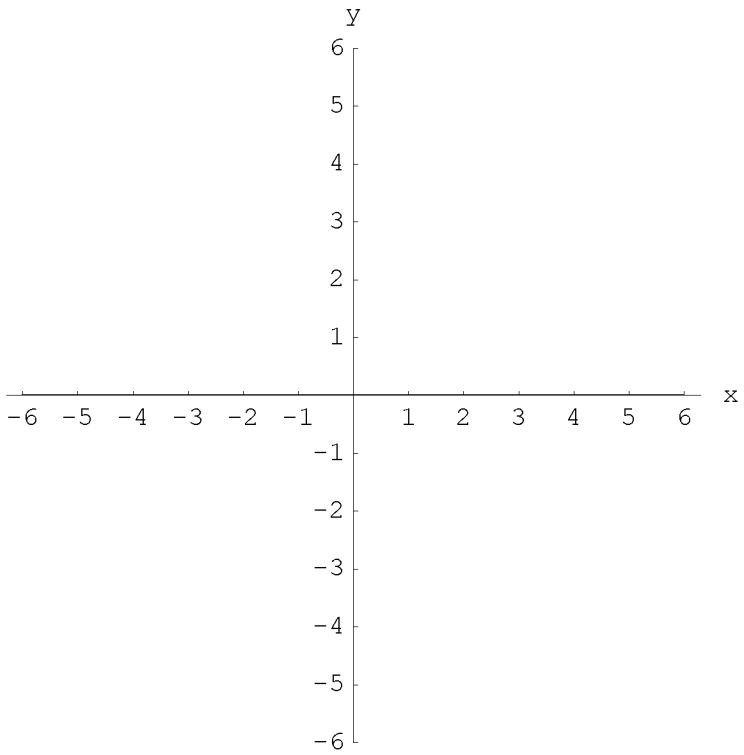
[2] Plot the line $3x - 5y = 15$ by finding the x and y intercepts (show the intercepts on your graph).



[3] Plot the line whose slope is $\frac{-1}{2}$ and which contains the point $(3, 1)$.



[3] Plot the lines $y = 3x - 1$, $x = 2$ and $y = -5$ on the axes provided.



■ B. Answer the following.

[1] At what point do the lines $x = 5$ and $y = -12$ intersect?

[2] At what point do the lines $x = 100$ and $y = 2x + 5$ intersect?

[3] What is the distance between the points $P(0, 0)$ and $Q(5, 4)$?

[4] What is the distance between the points $P\ (4,\ 3)$ and $Q\ (1,\ 7)$?

[5] What is the distance between the points $P\ (-2,\ -3)$ and $Q\ (7,\ 9)$?

■ C. Answer the following.

[1] What is the midpoint of the line segment $\overline{PQ}$ for $P\ (5,\ 9)$ and $Q\ (11,\ 21)$?

[2] What is the midpoint of the line segment $\overline{PQ}$ for $P\ (-1,\ -3)$ and $Q\ (10,\ 10)$?

[3] The midpoint of the line segment $\overline{PQ}$ is $M\ (5,\ 7)$. If $P\ (-4,\ -3)$, find the point Q.

■ **D. Answer the following.**

[1] Write the equation in point-slope form of the line through the points $P(-2,\ 6)$ and $Q(5,\ 7)$.

[2] Write the equation in point-slope form of the line through the point $P(2,\ 5)$ and parallel to the line $y = -3x + 4$.

[3] Write the equation in point-slope form of the line through the point $P(4, 6)$ and perpendicular to the line $y = -3x + 4$.

[4] Put the equation $y - 7 = -5(x - 2)$ in slope-intercept form.

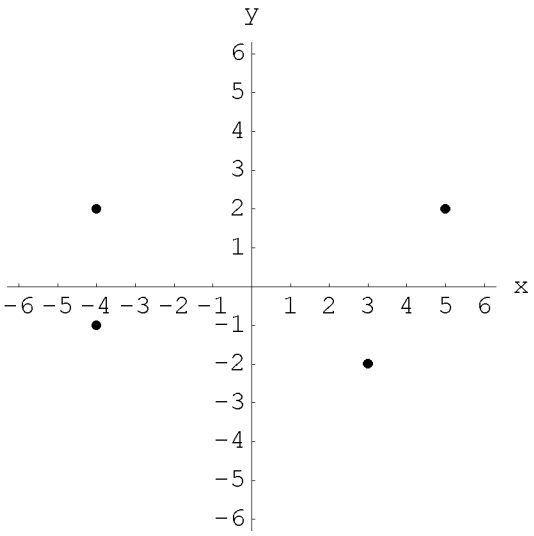
[5] Put the equation $y - 10 = -3(x - 1)$ in standard form.

■ E. Derive the point-slope equation of a line.

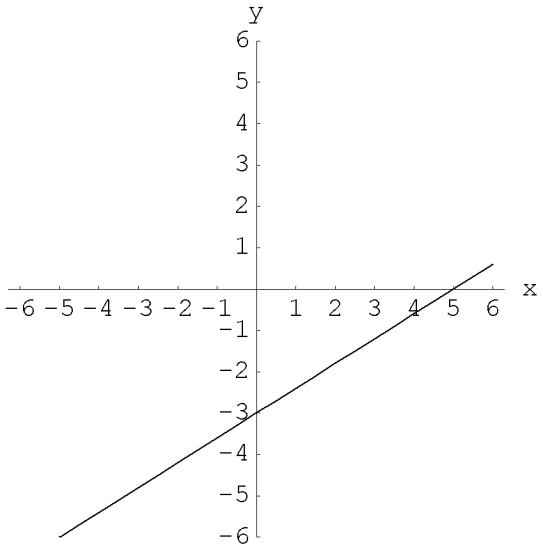
Math 8 Trimester 2 Test 2P - Practice - Answers

■ A. Plotting & Graphing

[1] Plot the points $P(3, -2)$, $Q(5, 2)$, $R(-4, -1)$, $S(-4, 2)$



[2] Plot the line $3x - 5y = 15$ by finding the x and y intercepts (show the intercepts on your graph).



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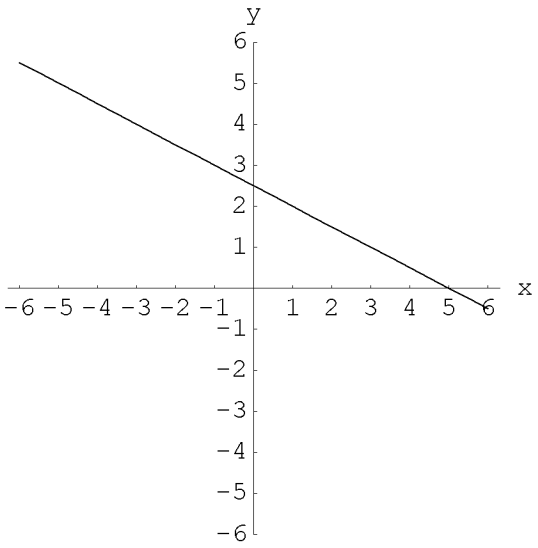

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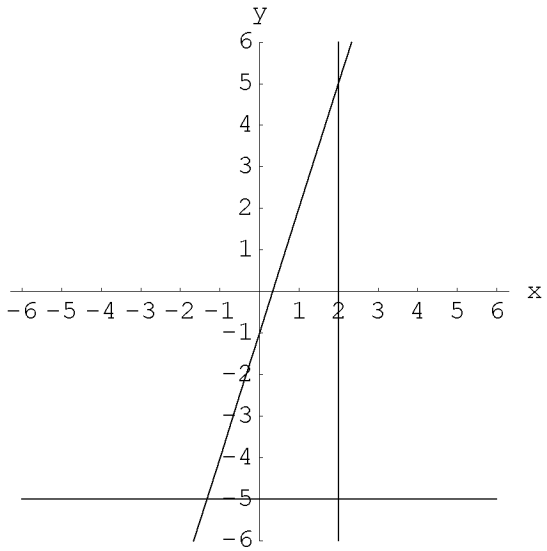

■ **B.**

[1] $(5, -12)$ **[2]** $(100, 205)$ **[3]** $\sqrt{41}$ **[4]** 5 **[5]** 15

■ **C.**

[1] $(8, 15)$ **[2]** $\left(\frac{9}{2}, \frac{7}{2}\right)$ **[3]** $(14, 17)$

■ **D.**

[1] $y - 6 = \frac{1}{7}(x + 2)$ **[2]** $y - 5 = -3(x - 2)$ **[3]** $y - 6 = \frac{1}{3}(x - 4)$

[4] $y = -5x + 17$ **[5]** $3x + y = 13$