Solving Multi-step Equations

Must show work! No work = No Credit

#	Problem	Work	Solution
1	$-20 = -4x - 6x$		X=_____
2	$p - 1 = 5p + 3p - 8$		P=_____
3	$2(4x - 3) - 8 = 4 + 2x$		X=_____
4	$-3(4x + 3) + 4(6x + 1) = 43$		X=_____
5	$-5(1 - 5x) + 5(-8x - 2) = -4x - 8x$		X=_____

Solving Midpoint Formula

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The midpoint of M of the line segment from $P_1 (x_1, y_1)$ to $P_2 (x_2, y_2)$

$$\left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right)$$

#	Problem	Work	Solution
1	$(8, -9), (0, 5)$		M = (,)
2	$(2, -11), (-9, 0)$		M = (,)
3	$(6.6, 8.52), (-5.5, 4.07)$		M = (,)
4	$\left(\frac{5}{3}, 1 \right), (0, 2)$		M = (,)
5	Given the midpoint & an endpoint, find the other endpoint Endpoint: $(-9, -1)$, midpoint: $(8, 14)$		E = (,)

The Distance Formula

For Points $A(x_1, y_1)$ and $B(x_2, y_2)$

$$AB^2 = (x_2 - x_1)^2 + (y_2 - y_1)^2$$

or $\quad AB = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$

Solving Distance Formula

Distance between A (2 , 8) and B (7 , 5)

$\qquad (x_1, y_1) \qquad\qquad (x_2, y_2)$

$AB = \sqrt{(7-2)^2 + (5-8)^2}$

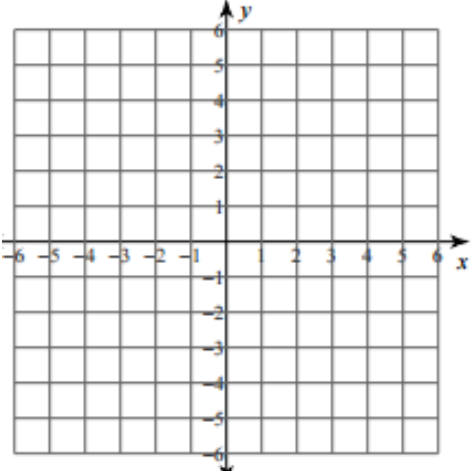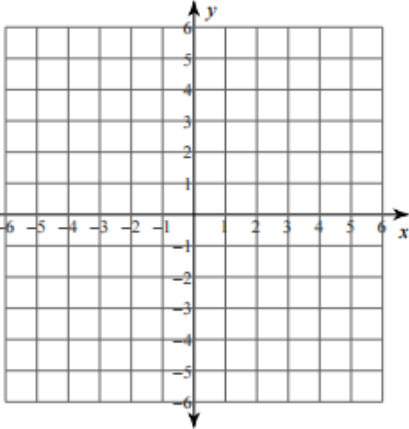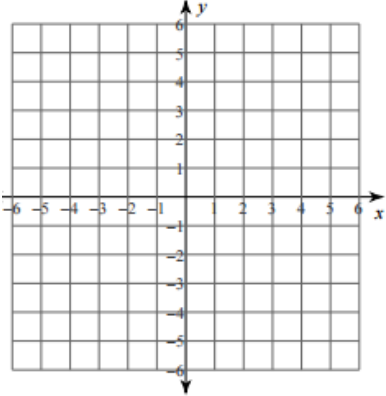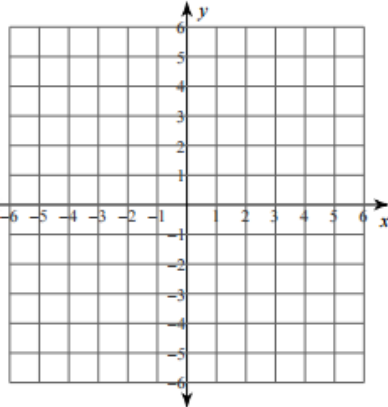$AB = \sqrt{5^2 + (-3)^2}$

$= \sqrt{34}$

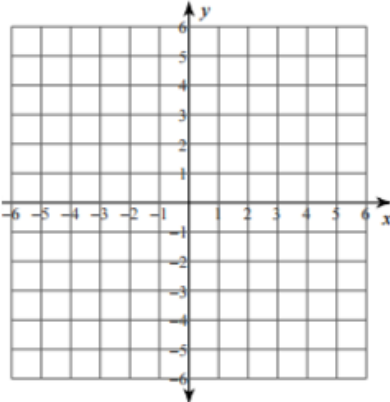**Must show work! No work = No Credit**

#	Problem	Work	Solution
1			d = _____
2			d = _____
3	$(5, 9), (-7, -7)$		d = _____
4	$(3, 8), (9, 10)$		d = _____
5	$(-5, 6), (8, -4)$		d = _____

Graphing Lines

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#	Problem	#	Problem
1	$y = -5$	2	$y = \dfrac{7}{2}x - 2$
3	$y = \dfrac{5}{3}x$	4	$y = -\dfrac{1}{3}x + 3$
5	Find the equation of a line that has slope 4 and passes through (5, 3) and graph it!		