

Ready, Set, Go!



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Ready

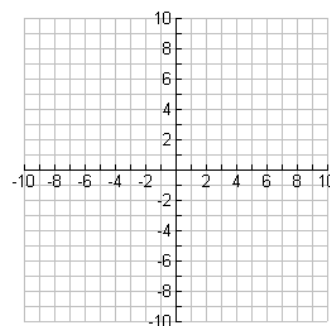
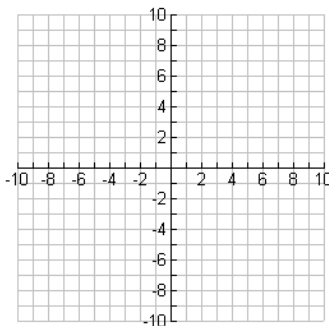
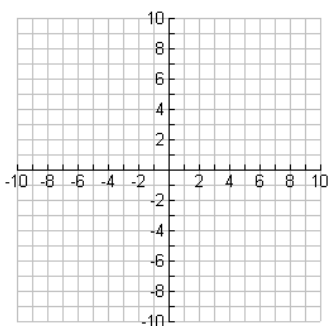
Topic: Solutions to an equation

Graph the following equations using the coordinate graph, and then determine if the given point is a solution to the equation.

1. $y = 5x - 2$ pt: (1, 3)

2. $y = \frac{-1}{2}x + 8$ pt: (0, 4)

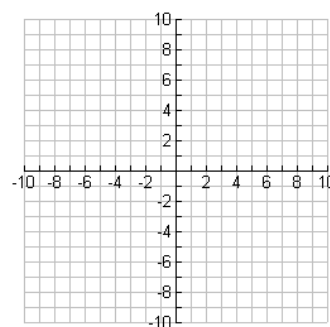
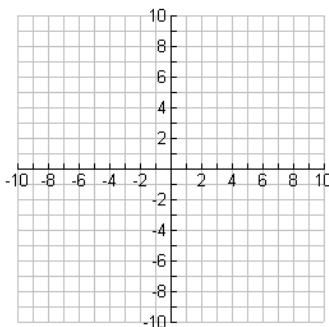
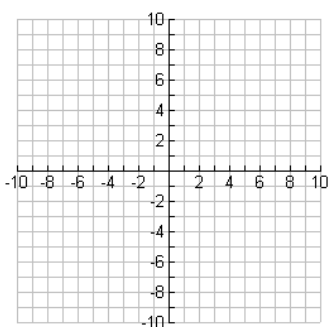
3. $y = x + 4$ pt: (-2, 2)



4. $y = x + 2$ pt: (-3, 0)

5. $y = \frac{5}{2}x - 7$ pt: (2, -2)

6. $y = \frac{-4}{3}x$ pt: (4, -16)



Set

Topic: Solutions to an equation

7. The solution to an equation is $n = -5$. The equation has parentheses on at least one side of the equation and has variables on both sides of the equation. What might the equation be?
8. Create a two-step equation that is true by expanding the given solution using properties of equality. Draw a model to represent your expanded equation.
- a. $x = 3$ b. $m = -2$ c. $a = 0$
9. Without solving, determine if the two expressions are equivalent. Explain your reasoning.
- a. $14 - (3a + 2) = 14 - 3a - 2$
10. Without solving, determine if the two expressions are equivalent. Explain your reasoning.
- a. $4a - 10 = 2(2a - 5)$
11. Without solving, determine if these two equations have the same solution.
 $3(x - 5) = 35$ and $3x - 5 = 35$. Why or why not?
12. Which of the following expressions are equivalent? Justify.
- $\frac{4t-10}{2}$ $\frac{4t}{2} - 10$ $2t - 10$ $4t - 5$
13. The solution to an equation is $n = -5$. The equation has parentheses on at least one side of the equation and has variables on both sides of the equation. What might the equation be?



14. Create a two-step equation that is true by expanding the given solution using properties of equality. Draw a model to represent your expanded equation.

a. $x = 3$

$m = -2$

$a = 0$

Go

Topic: Solutions to an equation

Check whether the given number is a solution to the corresponding equation.

15. $a = -3$; $4a + 3 = -9$

16. $x = \frac{4}{3}$; $\frac{3}{4}x + \frac{1}{2} = \frac{3}{2}$

17. $y = 2$; $2.5y - 10.0 = -0.5$

18. $z = -5$; $2(5 - 2z) = 20 - 2(z - 1)$

Need help? Online resources that may be helpful:

<http://www.khanacademy.org/math/algebra/solving-linear-equations/v/solving-equations-1>

<http://www.khanacademy.org/math/algebra/linear-equations-and-inequalitie/v/graphing-a-line-in-slope-intercept-form>

<http://www.youtube.com/watch?v=WxzpisUh0AU>

<http://patrickjmt.com/an-intro-to-solving-linear-equations-what-does-it-mean-to-be-a-solution/>

