

Ready, Set, Go!



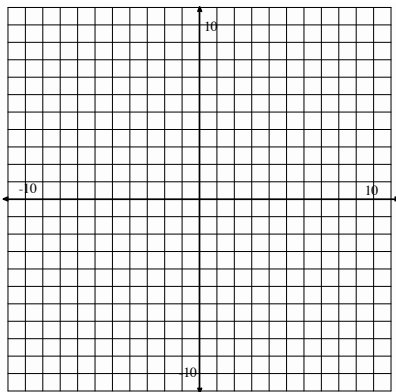
© 2012 www.flickr.com/photos/kolya

Ready

Topic: Solutions to an equation

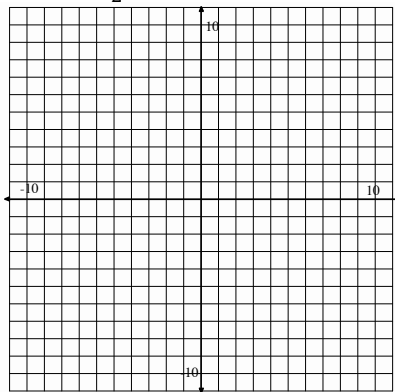
Graph the following equations using the coordinate graph, and then say if the given point is a solution to the equation.

1. $y = 5x - 2$



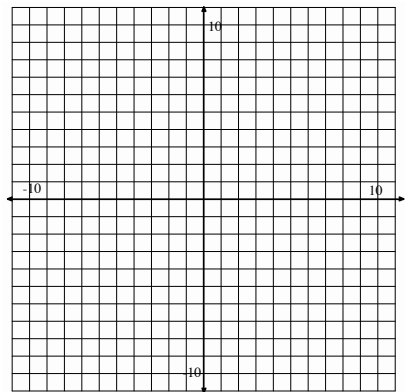
Point: (1, 3) Yes / No

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



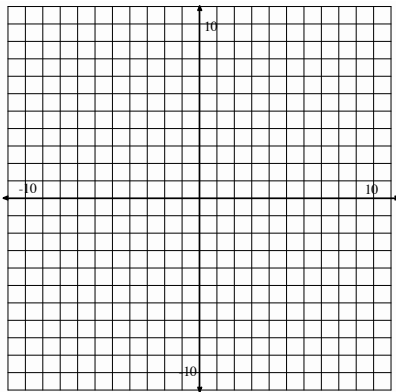
Point: (0, 4) Yes / No

3. $y = x + 4$



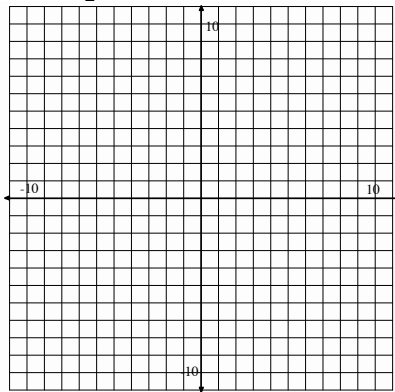
Point: (-2, 2) Yes / No

4. $y = x + 2$



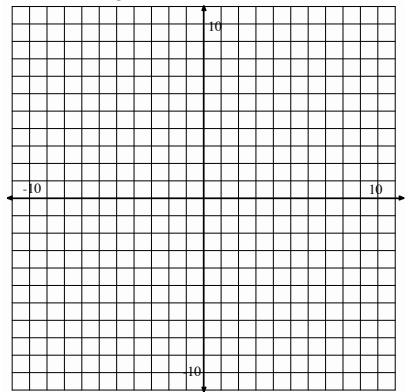
Point: (1, 3) Yes / No

5. $y = \frac{5}{2}x - 7$



Point: (2, -2) Yes / No

6. $y = -\frac{4}{3}x$



Point: (4, -6) Yes / No



Set

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 could 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. $x = 3$

$m = -2$

$a = 0$

9. Without solving, determine if the two expressions are equivalent. Explain your reasoning.

a. $14 - (3a + 2) = 14 - 3a - 2$

b. $4a - 10 = 2(2a - 5)$

10. Without solving, determine if these two equations have the same solution.

$3(x - 5) = 35$ and $3x - 5 = 35$. Why or why not?

11. Which of the following expressions are equivalent?

$\frac{4t-10}{2}$

$\frac{4t}{2} - 10$

$2t - 10$

$4t - 5$



Go

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

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

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

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

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

Need Help? Check out these related videos:

<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/>

