Welcome

A linear equation in one variable has at least one variable term, and may also have other numerical terms. The solution of a linear equation is the value of the variable that makes the equation true. Is there a value of x that makes the equation below true?

$x - 2 = x$

Watch!

For examples of linear equations with one solution, infinite solutions, and no solutions, watch this video:

- https://www.opened.com/video/give-examples-of-linear-equations-with-one-solution-infinite/620772

Focus: Simplifying Equations

To analyze an equation, it is helpful to write the equation in a simpler form. This may include applying the distributive property to eliminate parentheses or combine like terms on each side of the equation.

Simplify: $4(x + 2) - 3x = 3x + 5 - 2x + 1$

$4(x + 2) - 3x = 3x + 5 - 2x + 1$	Write the original equation.
$4x + 4(2) - 3x = 3x + 5 - 2x + 1$ $4x + 8 - 3x = 3x + 5 - 2x + 1$	Apply the distributive property to eliminate the parentheses.
$4x - 3x + 8 = 3x - 2x + 5 + 1$	Rearrange the terms on each side of the equation to group like terms together.
$x + 8 = x + 6$	Simplify each side.

Answers

No, there is no value of x that makes the equation $x - 2 = x$ true.

Watch!

For a quick overview of simplifying expressions, watch this video:

- https://www.opened.com/video/simplifying-algebraic-expressions-using-the-distributive/79702

After you have simplified an equation, how can you determine the number of solutions it has?