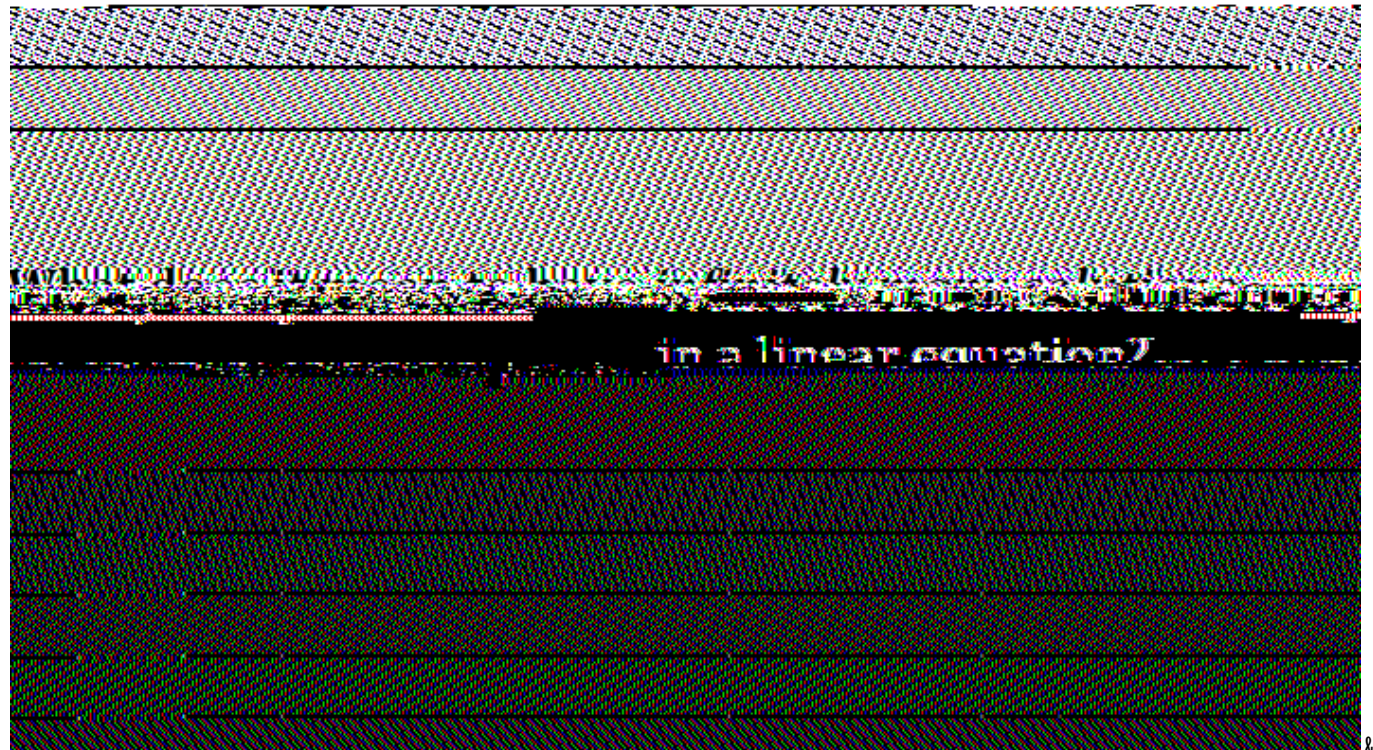


on?

equation

in a linear equation?

in a linear equation?



SPECIAL CASE

One Solution

One Solution

One Solution

$x = a$

You Try!

Use

properties
of equality

"Solve"

add, subtract, multiply, or divide by the same

number on both sides

solution

End Results

%
%
%
%

Activity

Step 4. Write Linear Equations in Slope-Intercept Form on posters.

and infinitely many solutions.

$\frac{5}{4}x - 1 = 1 - \frac{5}{4}x$	$7 - 9x = 9x - 7$		$9 - \frac{1}{2}x = 3$

solutions

5

5

1

YOU TRY!!!

The screenshot shows a software interface with several rows of mathematical expressions. At the top, there are three columns with the text $x := x$, $x := 6$, and $a := 7$. Below these are three equations: $3(x+2) = 30$, $5(2+c) = 45+5c$, and $2(a-2) = 2a-4$. Further down, there are more equations: $10 + 4 = 45 + 5$, $2(6+2) = 20$, $5(2+c) = 45+5c$, and $v+2 = 10$. A button labeled "Solve" is visible in the center. At the bottom of the interface, there are three columns with the text $3(x+2) = 30$, $5(2+c) = 45+5c$, and $2(a-2) = 2a-4$. The bottom portion of the image is obscured by a large black redaction box.

%
%
%
%

%

Infinitely Many

solutions

What can

about the

of the terms
with x in the
equation?

$$ax + b = cx + d$$
$$x = a$$

$$x + a = x + b$$
$$a = b$$

$$x + a = x + a$$
$$x = x$$

on both
sides of the

%

%

%

%

Quick Write

Equation?

the value of the variable is the only numeric solution to the equation.

When you substitute a number for the variable in the equation, the equation is true.

When you substitute a number for the variable in the equation, the equation is false.

When you substitute a number for the variable in the equation, the equation is true.

When you substitute a number for the variable in the equation, the equation is false.

When you substitute a number for the variable in the equation, the equation is true.

When you substitute a number for the variable in the equation, the equation is false.

%

%

%

WAV... and infinitely many solu...

... and infinitely many solu...

... and infinitely many solu...

$$y = 8 \quad | \quad 10 = 45 \quad | \quad -4 = -4 \quad | \quad | \quad |$$

Use ...

... and infinitely many solu...

... and infinitely many solu...

%
%
%

SPECIAL CASE

One Solution

Equation	One Solution	One Solution	One Solution
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$x = a$	$x = a$	$x = a$	$x = a$
Example Statement: $y = y - 7$	Example Statement: Variable = Zero $x = 0$	Example Statement: $2x + 12 = x + 12$	Example Statement: $3y - 7 = 0$
$y = y - 7$	add subtract multiply	$2x + 12 = x + 12$	$3y - 7 = 0$

Handwritten notes and equations for the first row of the table above.

Handwritten notes and equations for the second row of the table above.

$2x = x$ $2x + 12 = x + 12$		The statement $x = 0$ is true. ∴ The equation has one solution. The value of the variable is 0.	The statement $x = 0$ is true. ∴ The equation has one solution. The value of the variable is 0.
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Final result: The value of the variable is 0.

Warm-Up

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Warm-Up: Answer Key

