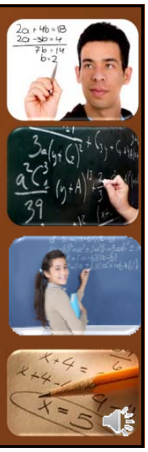
Algebra 1

Solving One-Step Equations



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Solving One-Step Equations

To solve for “x”, isolate “x”

x = something

Solve for y:

y + 6 = 13

y = 13 - 6

y = 7

Algebra Rules and Tricks

- To solve for a variable, isolate the variable

Solving One-Step Equations

6 = 6

If you do the same thing to both sides of an equation, it’s still and equation!

Algebra Rules and Tricks

- To solve for a variable, isolate the variable
- Do the same thing to both sides of an equation and it’s still an equation

-Step Equations

Inverse Operation

“the opposite”

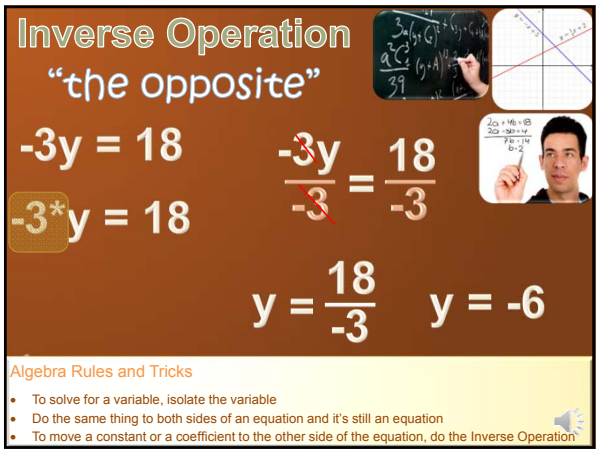
y + 6 = 18

y + 6 - 6 = 18 - 6

y = 12

Algebra Rules and Tricks

- To solve for a variable, isolate the variable
- Do the same thing to both sides of an equation and it’s still an equation
- To move a constant or a coefficient to the other side of the equation, do the Inverse Operation


Inverse Operation
"the opposite"
-3y = 18
-3*y = 18
$\frac{-3y}{-3} = \frac{18}{-3}$
$y = \frac{18}{-3}$
y = -6
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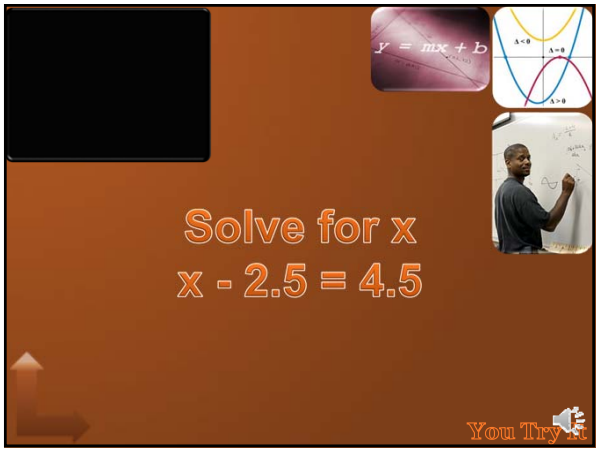
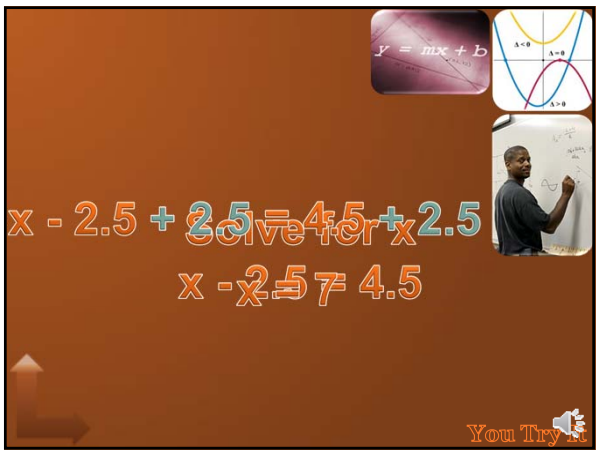
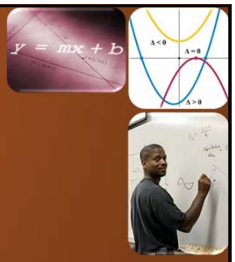

y = mx + b
Solve for x
x - 2.5 = 4.5
You Try It


y = mx + b
x - 2.5 + 2.5 = 4.5 + 2.5
Solve for x
x - x = 7
You Try It

Solve for z

$6z = 33$



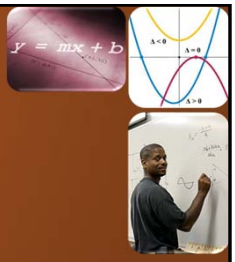
You Try #1

Solve for z

$6z = 33$

$\frac{6z}{6} = \frac{33}{6}$

$z = \frac{33}{6}$ $z = 5.5$



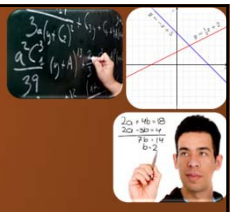
You Try #1

Solve for y:

$3y = 6$

$\frac{1}{3} * 3y = \frac{1}{3} * 6$

$y = 2$



Algebra Rules and Tricks

- To solve for a variable, isolate the variable
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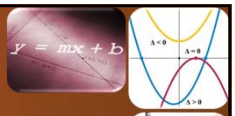
- To move a coefficient to the other side of the equation, multiply by the reciprocal of the coefficient

Solve for x:

$4x = 24$



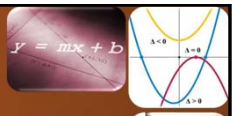
You Try It!

Solve for x:

$4x = 24$

$\frac{1}{4} * 4x = \frac{1}{4} * 24$

$x = 6$



You Try It!

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