

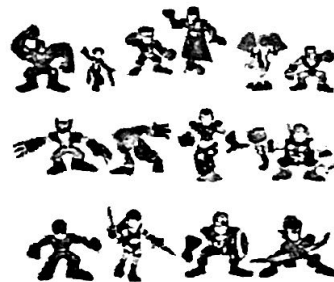
Name: _____

Solving One-Step Equations: Addition and Subtraction

How can you get the variable alone in an addition equation?

Ex: Greg has x plastic figures. After he bought 7 more figures, he had 25. How many plastic figures did Greg have?

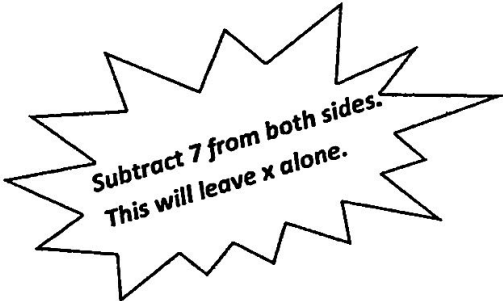
$$X + 7 = 25$$



To get the variable, x , alone, use the inverse operation.

What is the inverse operation of addition? _____

$$X + 7 = 25$$



Subtract 7 from both sides.
This will leave x alone.

To check, substitute ___ for x .

* To keep an equation balanced, the Subtraction Property of Equality allows you to subtract the same amount from both sides of the equation.

You try:

1) $m + 17 = 78$

2) $y + 56 = 109$

3) $56.4 + b = 342.6$

How can you get the variable alone in a subtraction equation?

Ex: Nina buys lunch for herself and her sister. She pays \$7.00. Nina has \$5.00 left over. Solve using the equation $b - \$7.00 = \5.00 to find out how much money Nina started with.

$$b - \$7.00 = \$5.00$$



To get the variable, b , alone, use the inverse operation.

What is the inverse operation of subtraction? _____

$$b - \$7.00 = \$5.00$$

Add \$7.00 to both sides.
This will leave b alone.

To check, substitute b for _____.

* To keep an equation balanced, the Addition Property of Equality allows you to add the same amount to both sides of an equation.

You try:

1) $y - 12 = 89$

2) $x - 67 = 123$

3) $z - 31.3 = 17.6$

Name: _____

Solving One-Step Equations: Multiplication and Division

How can you get a variable alone in a multiplication equation?

Ex: Johnny is an artist. He sold 3 paintings for a total of 45 dollars. If all the paintings cost the same amount, how much did he charge for each painting?

$$3x = 45$$



To get the variable, x , alone, use the inverse operation.

What is the inverse operation of multiplication? _____

$$3x = 45$$

Divide 3 from both sides.
This will leave x alone.

To check, substitute ___ for x .

* To keep an equation balanced, the Division Property of Equality allows you to divide both sides of the equation by the same non-zero amount.

You try:

1) $8m = 56$

2) $4h = 264$

3) $1.6y = 9.6$

How can you get the variable alone in a division equation?

Ex: Jamie's class is planting a garden. Jamie divided seeds so that 20 students had 35 seeds each. How many seeds did Jamie start with?

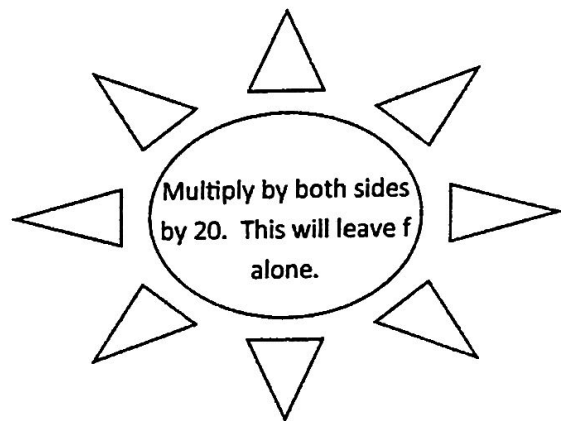
$$\frac{f}{20} = 35$$



To get the variable, f , alone, use the inverse operation.

What is the inverse operation of division? _____

$$\frac{f}{20} = 35$$



To check, substitute _____ for f .

** To balance an equation, the Multiplication Property of Equality allows you to multiply both sides of the equation by the same non-zero amount.*

You try:

1) $\frac{m}{2} = 30$

2) $\frac{c}{5} = 22$

3) $\frac{d}{7} = 52$