

Warm Up

(a) $60 \div 12$ (divided)

(b) 30% of 240 is...

(c) $-12 - (6)$

Solving Simple Equations

(Two step problems)

Learning Goal:

By the end of today, I will be able to solve simple (one step and two step) equations using the opposite operations of adding/subtracting/ multiplying and dividing.

Reminder

To "undo" an adding operation, we would need to use a subtracting operation, and vice versa.

To "undo" a multiplication operation, we would need to use a division operation, and vice versa.

Inverse Operations or Opposite Operations

Solve the following for the given unknown, be sure to show the **opposite operation** being used.

(a) $n - 16 = 12$

(b) $5n = 45$

In TWO step equations it can be difficult to know where to begin, we will use the acronym **SAMDEB** to help guide us.

You should see that this is the familiar BEDMAS acronym in reverse.

We will start by looking for adding or subtracting operations to undo first, and then move on to multiplication and division, and lastly brackets and exponents.

We use opposite operations to ISOLATE the variable we are trying to determine.

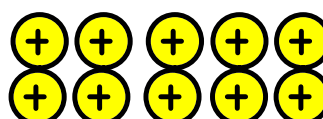
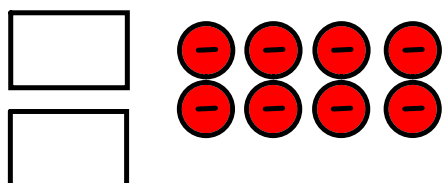
Isolate means get the variable in the top position, by itself, with no other numbers around it.

Solve for the unknown quantity, by moving the counters around or by using the Zero Principle to cancel out counters.

SAMDEB - guide



$$2n - 8 = 10$$



What's in the box?

Algebra Technique

$$2n - 8 = 10$$

Solve the following for the given unknown, be sure to show the opposite operation being used.

SAMDEB - guide

$$2a + 16 = 38$$

First step..

Second step..

Solve the following for the given unknown, be sure to show the opposite operation being used.

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$$4a - 22 = 10$$

First step..

Second step..

Solve the following for the given unknown, be sure to show the opposite operation being used.

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$$\frac{a}{2} - 12 = 30$$

First step..

Second step..

Solve the following for the given unknown, be sure to show the opposite operation being used.

SAMDEB - guide

$$\frac{a}{6} = \frac{12}{4}$$

First step..

Second step..

Task - Solving Equations

Attachments

Math - task - simple equations.doc