

Stick Quiz

Translate the verbal sentences into algebraic equations.

1. *Half a number minus ten equals the number.*

$$\frac{1}{2}t - 10 = t$$

$$\frac{x}{2} - 10 = x$$

2. *The sum of c and twice d is the same as 20.*

$$c + 2d = 20$$

$$2d + c = 20$$

Translate the algebraic equations into verbal sentences.

3. $10(a - b) = b + 3$

$$20 = c + 2d$$

4. $\frac{12}{b} - 4 = -1$



I can... solve Multi-Step Equations.

Will answer questions about the front load after the lesson

$$m - 5 = 32$$

$$m - 5 + 5 = 32 + 5$$

$$m + 0 = 37$$

$$m = 37$$

add inv.

add id.

$$2x + 5 = 25$$

$$-5 = -5$$

$$\frac{1}{2} \cdot 2x = \frac{20}{2}$$

Mult Inv.

$$(1x) = 10$$

Mult Identity

$$x = 10$$

Remember Number Properties

Give me a list of all properties we discussed last chapter.

Add Inverse Mult Inverse
 Commutative Reflexive Prop
 Add Identity Transitive
 Associative Distributive
 Mult. Identity Symmetric
 Zero Product Prop

Substitution

When evaluating an expression use
 PERMDAS

When solving an equation we are
 undoing Permdas \rightarrow SADMERP

Add Inv. Mult Inv.

1. Solve and list property for every step.

$$\begin{array}{r} (h) - 12 = -27 \\ +12 \quad +12 \\ \hline h + 0 = -15 \\ h = (-15) \checkmark \end{array}$$

$$\begin{array}{l} (-15) - 12 = -27 \\ -27 = -27 \checkmark \end{array}$$

Add Inv.
Add Id. ←

✓ Check (Substitute)

Watch
Only!!

2. Solve and list property for every step.

$$90 + x = 37$$

✓ Check (Substitute)

3. Solve and list property for every step.

$$\begin{array}{l} \frac{+75}{+15} = \frac{-15b}{+15} \\ 5 = b \\ b = 5 \checkmark \end{array}$$

Mult Inv. **ALERT**

Symmetric Prop.

✓ Check (Substitute)

$-75 = -15(5)$
 $-75 = -75$

4. Solve

$$\begin{array}{l} \cancel{3} \cdot \frac{x}{\cancel{3}} = 4 \cdot 3 \\ x = 12 \checkmark \\ \frac{12}{3} = 4 \\ 4 = 4 \end{array}$$

Mult Inv.

✓ Check (Substitute)

2-3 Solving Multi-Step Equations

I can... solve Multi-Step Equations.


1. Solve and list property for every step.

$$\begin{array}{r|l}
 2q + 11 & = 3 \\
 \hline
 2q & = -8 \\
 \hline
 q & = (-4) \checkmark
 \end{array}$$

add Inv. Sadmerp

Mult Inv.

$$\begin{aligned}
 2(-4) + 11 & \stackrel{?}{=} 3 \\
 -8 + 11 & = 3 \\
 3 & = 3
 \end{aligned}$$

 Check (Substitute)

2. Solve and list property for every step.

$$6v + 7 = -5$$

✓ Check (Substitute)

3. Solve and list property for every step.

$$\frac{k+9}{12} = -2 \cdot 12$$

Sadmerp

Mult Inv.

$$k+9 = -24$$

add Inv.

$$k = -33 \checkmark$$

$\frac{1}{12} \cdot \frac{12}{1}$

$$\frac{(-33+9)}{12} \stackrel{?}{=} -2$$

✓ Check (Substitute)

$$\frac{3}{2} \cdot \frac{2}{3} x = 4 \cdot \frac{3}{2} \text{ mult. inv.}$$

$$\frac{6}{6} x = \frac{12}{2}$$

$$1x = 6$$

Solve and list property for every step.

4. $\frac{4}{5}m + 2 = 6$

5. $\frac{(-4j - (-4))}{-6} = 12 (-6)$

$$-4j + 4 = -72$$

1 ~~$\frac{4}{3} \cdot \frac{3}{4} (x-7) = \frac{5}{3} \cdot \frac{4}{3}$~~

$$x-7 = -20$$

6. Three-fourths of the difference of (a number and 7) is negative fifteen. What is the number?

Vocabulary:

Integer: all positive and negative whole numbers. (No fractions)

Odd: a number that can not divide by 2.

Even: a number that will divide by 2.

Consecutive: numbers in a row. 1,2,3
6,8,10 or 11,13,15

Find three consecutive even integers whose sum is 12.

$$\text{even} + \text{even} + \text{even} = 12$$

If we say the
1st even is x.



$$x + (\quad) + (\quad) = 12$$



7. Find three consecutive odd integers whose sum is 57

8. Find three consecutive even integers whose sum is 84.

You Try!

Find three consecutive numbers that whose sum is 72.

Homework

2.2 Pg. 86 #~~42~~, 43, 45-63o

2.3 Pg. 94 #11-21o, ~~26-29~~, 41

WRITE The properties used!

Verify your work!

#swag!