

Warm-Up

1. Which operation will you undo first?
(Don't solve, just say!)

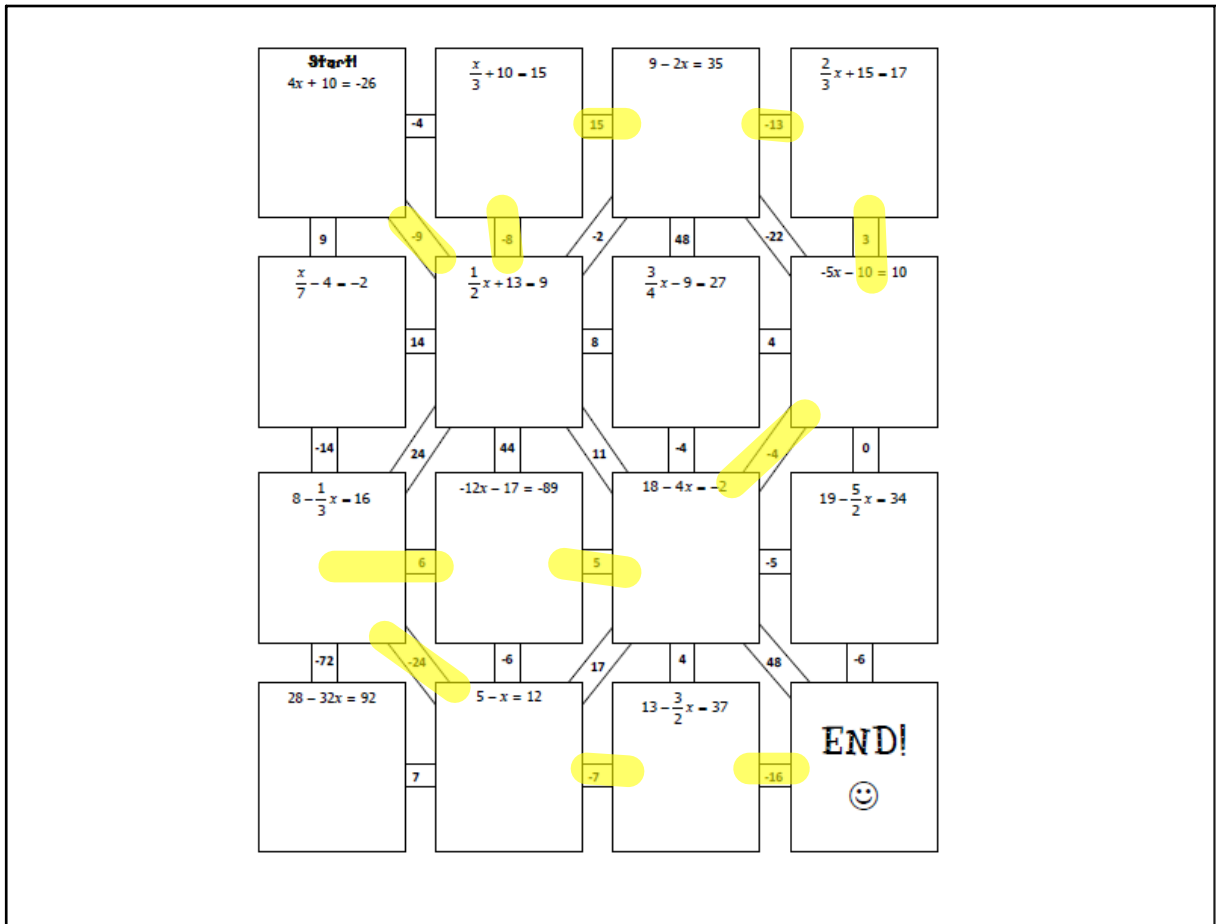
- » $2x - 6 = 9$ subtraction
- » $+3 + x^2 = 1$ addition
- » $(x+4)/7 = 2$ division

P
E
M/D
A/S

2. Once you've solved an equation, what can you do to check if you've solved it correctly?

plug in our solution for the variable

Sep 21-5:20 PM



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3rd Box

1st Row

~~$$+9 - 2 \cdot x = 35$$

$$\underline{-9} \quad \underline{-9}$$~~

$$-2 \cdot x = 26$$

$$\underline{-2} \quad \underline{-2}$$

$$-2x + 9 = 35$$

$$x = -13$$

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2nd Row

2nd Box

~~$$\frac{1}{2} \cdot x + 13 = 9$$

$$\underline{-13} \quad \underline{-13}$$~~

$$\frac{1}{2}x = -4$$

$$\underline{\frac{1}{2}} \quad \underline{\frac{1}{2}}$$

$$x = \frac{-4}{\frac{1}{2}} \cdot \frac{2}{1}$$

$$x = -8$$

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SET - collection of numbers
or symbols

element - a single member
of a set

replacement set that contains
all possible solutions
we can choose from

Solution set which
contains the actual
values which make
our equation true

★ Solution set is
dependent on the
replacement set

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$$2q + 5 = 13 \quad \{2, 3, 4, 5, 6\}$$

$$2(2) + 5 = 9 \quad \text{NO}$$

$$2(3) + 5 = 11 \quad \text{NO}$$

$$2(4) + 5 = 13 \quad \text{YES}$$

$$2(5) + 5 = 15 \quad \text{NO}$$

$$2(6) + 5 = 17 \quad \text{NO}$$

$$\{4\}$$

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$$x^2 - 3 = 6 \quad \{-3, -1, 0, 1, 3\}$$

★ parentheses matter w/ negatives!

$$(-3)^2 - 3 = 9 - 3 = 6 \quad \text{YES}$$

$$\boxed{-} \quad \boxed{3} \quad \boxed{x^2} \quad (-1)^2 - 3 = -2$$

$$(0)^2 - 3 = -3$$

$$(1)^2 - 3 = -2$$

$$\{-3, 3\} \quad (3)^2 - 3 = 6$$

Sep 22-9:56 AM

$$z = m \quad \{1, 3, 5, 7\}$$

"the empty set" $\{ \{$

$$\{ \} \quad \emptyset$$

Sep 22-10:03 AM