WARM UP

Evaluate:

1) $45 + x$ $x = 87$

2) $13x$ $x = 15$

3) $2.4 + x$ $x = 3.91$

4) $21 - x$ $x = 7.32$

MATH COURSE I

One-Step Equations and their Solutions

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VOCABULARY

<u>Equation</u>: a mathematical statement that show two expressions are equal

<u>Solution</u>: the value or values that make an equation true

<u>Inverse operations</u>: operations that undo each other ex. Addition/subtraction, multiplication/division

Adding Equations Steps

Step 1: Isolate the variable (put it by itself).

Step 2: Use inverse operations to undo the equation.

Step 3: Solve the equation.

Example: $x + 87 = 152$

$-87 \qquad -87$

$x = 65$

Determining Solutions of Equations

Adding Equations

Example: a + 23 = 82

$$-23 \qquad -23$$

$$a = 59$$

Subtraction Equations

Steps are the same! (What were they?)

Example: y − 23 = 39

   +23   +23

   y = 62

Another Example

Example: 78 = v – 15

$$+15 \qquad + 15$$

93 = v

Multiplication Equations

Multiplication and division are inverse operations.

**Steps are the same as for addition and subtraction equations.

Example

1) $\underline{5p} = \underline{75}$
     5   5

     p=15

2) 16 = 8r

 16 ÷ 8 = 8r ÷ 8

       2 = r

Division Equations

Multiplication is the inverse operation of division.

Steps are the same.

$$x/7 = 5$$

$$x/7\,(7) = 5(7)$$

$$x = 5$$

Practice

[Practice](#)