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sdrawkcaB gnikroW

3.2

In Chapter 3, we’ll focus on problems where we know the output, but we don’t know the input numbers. So, as the title of this lesson says, we’ll have to \_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Here’s an example:

 1). For a total of $21, you buy 4 songs online and get a $15 gift card. What is the cost of **each song**?



Gift card

$15

= $21

+

Pairs or individual: Practice on your own and check your work with the answers on the screen.

 3). You are having pizzas delivered. How much is each pizza?

+

$4 delivery fee

= $31.75

Equation

Picture

4). Two bottles of root beer and a $3 ice cream cost a total of $8.40. How much is each bottle?

 Picture Equation

5). What is “x” worth in the problem below?

Picture

Equation

*x*

*x*

*x*

5 +

*x*

91 =

91 = 5 + 4*x*

Keeping an Equation Balanced

The equals sign ($=$) in an equation means that the two sides are balanced. For example, “2 + 3 = 5” means that 2 + 3 balances out with 5:

 **2 rules to follow when solving equation:**

**a). The goal is to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**

 **b). To keep the equation balanced, you have to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

 **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**

**Solving Equations with Algebra Tiles**

2x + 3 = 9

7).

**Answer**

 x = \_\_\_\_

 Check: \_\_\_\_\_ = \_\_\_\_\_

Worked Example: Watch #8 and discuss the steps so you can do #9 on your own.

Practice: Now try #9 on your own.

Start by writing down the equation

9).

**Answer**

 x = \_\_\_\_

 Check: \_\_\_\_\_ = \_\_\_\_\_

Start by writing down the equation

10).

**Answer**

 x = \_\_\_\_

 Check: \_\_\_\_\_ = \_\_\_\_\_

Small Group Practice:

Solve each equation using algebra tiles.

11). 2x + 4 = 10

12). 3x + 5 = 5x

x = \_\_\_\_. Check: \_\_\_\_ = \_\_\_\_

x = \_\_\_\_. Check: \_\_\_\_ = \_\_\_\_

13). x +10 = 3x + 2

x = \_\_\_\_. Check: \_\_\_\_ = \_\_\_\_

14). 13 = 3 + 2x

x = \_\_\_\_. Check: \_\_\_\_ = \_\_\_\_

15). 4x + 2 + x = 3x + 5

x = \_\_\_\_. Check: \_\_\_\_ = \_\_\_\_

16). 2 + 5x = 2x + 7 + 2x

x = \_\_\_\_. Check: \_\_\_\_ = \_\_\_\_

17). 2(x + 5) = 4x

x = \_\_\_\_. Check: \_\_\_\_ = \_\_\_\_

**Licensing**

Credits:

* The pizza image is Microsoft clipart.
* The delivery guy is MS Office Online clipart image MP900386221.