

## Lesson 58: Introduction

**Purpose of lesson:** You will learn about **algebra** and how to use **algebra**.

**Words to Learn:** **Algebra:** is the part of math that helps solve math problems using **variables, constants, and expressions.**

**Variables:** are amounts that will change. For example:

$$x + 4 = 8 \quad \underline{x \text{ is the variable.}}$$

**Expression:** is a mathematical phrase. For example:

$$\underline{x + 4 \text{ is an expression.}}$$

**Constant:** is the number in an algebraic expression. For example:

$$x + 4 = 8 \quad \underline{4 \text{ is the constant.}}$$

**Rule:** a procedure to follow in order to solve a math problem.



**You have been using algebra most of your life!**  
**Let me show you.**

$2 + \square = 4$  is **algebra!** The answer that fits in the box is **2**. In algebra instead of using a box we use a letter. So, then we write it:  $2 + x = 4$ ;  $x = 2$ . **x** stands for the **unknown** number.

Let's try some!

Solve each **expression** if  $x = 2$ .

(Since **x** is a **variable** we can say  $x = 2$ .)

a)  $3 + x$  (Now put 2 in place of **x**)

$$3 + \underline{2} = 5$$

b)  $7 + x$

$$7 + \underline{2} = 9$$

c)  $x + 10$

$$\underline{2} + 10 = 12$$

d)  $x + 21$   
 $\underline{2} + 21 = 23$

**Solve each expression if  $x = 10$ .**

e)  $x - 7$   
 $10 - 7 = 3$

f)  $21 - x$   
 $21 - 10 = 11$



**You can do this with other operations as well!  
Let's try some.**

Now it's your turn!

**Take Lesson 58 Quiz 1**

Great Job! Let's try some more!

**Take Lesson 58 Quiz 2**