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: \( x + 4 = 8 \)  \( x \) is the **variable**.

**Expression:** is a mathematical phrase. For example: \( x + 4 \) is an **expression**.

**Constant:** is the number in an algebraic expression. For example: \( x + 4 = 8 \)  \( 4 \) 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 + [BLANK] = 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 \( x \))
   \( 3 + 2 = 5 \)

b) \( 7 + x \)
   \( 7 + 2 = 9 \)

c) \( x + 10 \)
   \( 2 + 10 = 12 \)
d) \(x + 21\)
   \[\frac{2}{2} + 21 = 23\]

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