



हिमाचल प्रदेश स्कूल शिक्षा बोर्ड, धर्मशाला-176213

Himachal Pradesh Board of School Education, Dharamshala-176213

Hi.Shi.Bo.(39)/T.Book/Correction/2023/10266

Dated: 04-05-2023

**Corrigendum**

Please read the equation  $2x-3=7$  as  $2x-3=7$  mentioned in last Para of Chapter No. 2 at Page 21 of Book Code-815 (Mathematics) in the example section of Linear Equations in One Variable. The Copy of Corrected Page is also being uploaded in all School Login ID's as well on the Board website.

**Secretary  
HPBOSE**

Endst. No. As above,

Dated: 04-05-2023

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# Linear Equations in One Variable



## 2.1 Introduction

In the earlier classes, you have come across several **algebraic expressions** and **equations**. Some examples of expressions we have so far worked with are:

$$5x, 2x - 3, 3x + y, 2xy + 5, xyz + x + y + z, x^2 + 1, y + y^2$$

Some examples of equations are:  $5x = 25$ ,  $2x - 3 = 9$ ,  $2y + \frac{5}{2} = \frac{37}{2}$ ,  $6z + 10 = -2$

You would remember that equations use the *equality* (=) sign; it is missing in expressions.

Of these given expressions, many have more than one variable. For example,  $2xy + 5$  has two variables. We however, restrict to expressions with **only one variable** when we form equations. Moreover, the expressions we use to form equations are **linear**. This means that the highest power of the variable appearing in the expression is 1.

These are linear expressions:

$$2x, 2x + 1, 3y - 7, 12 - 5z, \frac{5}{4}(x - 4) + 10$$

These are **not** linear expressions:

$$x^2 + 1, y + y^2, 1 + z + z^2 + z^3 \quad (\text{since highest power of variable} > 1)$$

Here we will deal with equations with linear expressions in one variable only. Such equations are known as **linear equations in one variable**. The simple equations which you studied in the earlier classes were all of this type.

Let us briefly revise what we know:

(i) An *algebraic equation* is an equality involving variables. It has an equality sign. The expression on the left of the equality sign is the *Left Hand Side* (LHS). The expression on the right of the equality sign is the *Right Hand Side* (RHS).

