

## Multiplication Methods

43 x 92

To solve this problem, we use the Long Multiplication Method.

Multiply the multiplicand by each digit of the multiplier then add the results.

There are alternative algorithms that allow many students to find other methods that are appealing and easier to navigate.

Occasionally students prefer them to the traditional long multiplication method.

Some of these alternative methods are:

**Lattice Multiplication Method**

**Vedic Multiplication Method**

**Area Multiplication Method**

**Egyptian Multiplication Method**

**Russian Peasant Multiplication Method**

### Procedure

Teachers wishing to present alternative methods of multiplication begin by showing the video of their preferred method to the class.

Examples are presented by the teacher to the entire class.

Students are then paired to practice the chosen method.

Once student mastery is achieved, place worksheets in the Math Centre for students to complete.

### Possible activities involving Multiplication Methods

Math Night

Enrichment

Parent Involvement

#### Math Night:

Teachers may choose to present various multiplication methods.

On Math Night, allow students to demonstrate their math skills to their parents.

#### Enrichment:

Allow the competent students to help classmates master different multiplication methods.

While students are working in pairs, the teacher helps struggling students.

#### Parent Involvement:

Teachers inform parents of the alternative multiplication methods by sending home a note.

Parents are invited to watch the videos online with their child.

Students can then practice at home with the help of their parent.

A partnership is developed between home and school.

## Resources for Multiplication Methods

### Lattice Multiplication Method

Also known as the Jalousia method or Sieve method the Lattice Method dates back to 10th century India.

The lattice Method was introduced to Europe in 1202 in Fibonacci's Liber Abaci.

It is a method of multiplying large numbers using a grid.

Watch the video:

<http://www.pedagonet.com/math/lattice.htm>

### Vedic Multiplication Method

A system of mental calculation developed by Shri Bharati Krishna Tirthaji in the middle 20th century. This method utilizes a vertical and crosswise formula.

Watch the video:

<http://www.pedagonet.com/math/vedic.htm>

### Area Multiplication Method

A method that teaches younger students how to associate an area model with multiplication by dividing a rectangle into simpler pieces.

Watch the video:

<http://www.pedagonet.com/videos/areamethod.html>

### Egyptian Multiplication Method

Dating back to ancient Egypt, this method does not require memorization of all multiplication tables.

It relies only on the ability to add and multiply by 2.

Watch the video:

<http://www.pedagonet.com/videos/egyptianmethod.html>

### Russian Peasant Multiplication Method

A method still used in some areas of Russia today, the Russian Peasant Multiplication Method involves the process of halving and doubling which reduces one factor to powers of two.

Watch the video:

<http://www.pedagonet.com/videos/russianmath.html>

## Other Methods

### Japanese Multiplication Method

This method uses graphic representation to enhance the understanding of the multiplication process.

Watch the video

<http://www.pedagonet.com/videos/nipponmath.html>

**Butterfly Math**

Enrichment activity for adding and subtracting fractions.

Watch the video

<http://www.pedagonet.com/videos/butterflymath.html>

**PS:**

Students and teachers are also intrigued by Magic Squares and Math Predictions.

Visit [www.mathtricks.ca](http://www.mathtricks.ca) to find out more!