

**Math Tricks**  
Math Fun For Everyone  
[www.mathtricks.ca](http://www.mathtricks.ca)

### **Multiplication Methods**

Multiply  $43 \times 92$

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 methods are:

#### **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/maths/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/maths/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>

**Make math fun for everyone!**

**Distribute this handout to students, teachers, at workshops and on Math Fun Night.**