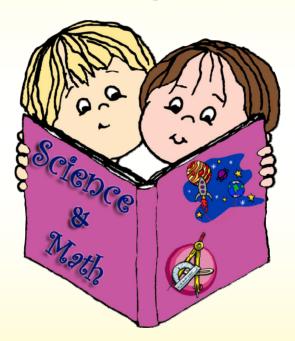


# Valeh Book Series

(Primary Level)



# Fourth Grade

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# Introduction

Instructional system of each country is the most important factor for the social, economical and political systems. On the other hand, teachers are the constructors of the basis of instructional systems and they have got important role in the education of children.

It seems that the changes in teaching methods from classic methods to modern ones are the foundation of any development in the society. In order to achieve our goals in educational systems and decrease the gap between the developed and developing countries we have to change the method of education basically.

The best way to reach this purpose is to omit the classical methods of teaching and to make the teaching simple enough so that the students can understand. They should be able to perceive the key concepts scientifically. This approach leads to research and has the students use innovation and creativity in their studies. This institute is going to use the instruments, laboratory facilities and purposeful book. We hope to meet the goals of the system.

The Managing Director Of Valeh Press Ali Valeh



# **Foreword**

In our world of rapid scientific development, a knowledge of scientific principles and the ability to reason scientifically have become an essential part of basic knowledge.

In order to be equipped to deal with everyday living, everyone needs to know how things work and why certain phenomena occur. At work and at home, in the office and on the farm, scientific changes are affecting our lives.

This is where education can play a pivotal role in preparing children to cope with their changing world. For the object of enlightened scientific teaching is to generate a lively sense of scientific curiosity and the pession to learn more about the principles of science and the ways in which affects their lives.

The publishers of these series have endeavoured to present science in a stimulating and exciting way, aiming to stimulate children for whom these books are intended.

The key to a constructive future of mankind comes from science. It is therefore of vital importance that children develop an ability to understand their environment. These series of books can be used by the students of primary schools, teachers and even their parents as the main book or source in different bilingual institutions and schools.

### Acknowledgments

We gratefully acknowledge the substantive contributions of the members of advisory board: Mohammad Zare, Maryam vatandoost, Maryam Mansoor Khaki for their kind assistance and advice in the preparation of this book.

We would like to thank the people who helped to develop and write this textbook. We appreciate the teamwork dedicated by Valeh publications to help us through the publishing process. We are especially grateful for the help of Ali Valeh and Kamran Shakiba who oversaw the complete process of the book. Without their dedication, expertise, and experience – coupled with kindness, encouragement and guidance – this book would never have been published.

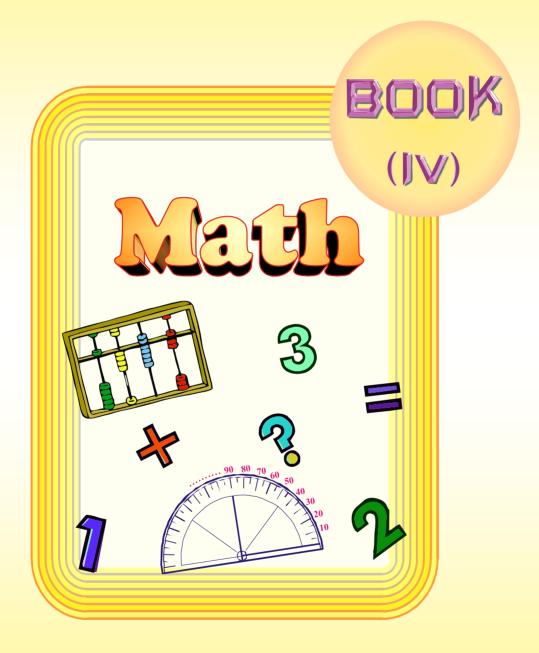
In addition we want to thank our friends and colleagues for their unlimited enthusiasm, encouragement and help in getting this book published.

We would like to thank the following individuals for their assistance in the preparation of this book:

Zahra Nobakht, Navid Sharifipour, Masume Hassani, Mahnaz Aliyari, Maryam Barband.

This book is dedicated to our encouraging, benevolent and loving parents who inspired us to achieve and care for us during this period of time.

Spring 2011







Chapter 1
Ways of showing numbers / Value chart / Expanded numeral / Counting in
millions / Different uses for numbers / subtracting greater numbers.
Chapter 2Multiplication and Division
Meaning of multiplication and division / Equations and working forms / Properties
of multiplication / one factor greater than 100 / Both factors greater than 10 /
Division with remainders / Two stage division / Division.
Chapter 3Geometry
Curves and shapes / Measuring length / Angles / Polygons / Parallelograms.
Extra Practice

# Te's elane to beam Let's start







### Ways of showing numbers:

We can name any number by using the ten digits: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9. In naming a number, we use three values for each digit.

The face value of the 5 in 572 is  $\underline{5}$ .

The place value of the 5 in 572 is <u>hundreds</u>.

The **total** value of the 5 in 572 is 500.

The compact numeral 572 may be written as the same of the total values of its digits, that is, as 500 + 70 + 2. This is called an expanded numeral.

### Name the face value of the digit in the tens place.

<b>1)</b> 48	<b>4)</b> 461
<b>2)</b> 379	<b>5)</b> 87
<b>3)</b> 258	<b>6)</b> 56

### Name the place value and total value of the 4.

<b>1)</b> 124	<b>4)</b> 41
<b>2)</b> 4007	<b>5)</b> 142
<b>3)</b> 6491	<b>6)</b> 54



# Complete the table to show the values of the digit.

Face value	6	7	?	5	4	7
Place value	Hundreds	?	Tens	Ten thousands	?	?
Total value	?	70	40	?	4000	7,000,000

# Write an expanded numeral for the compact numeral.

<b>1)</b> 982	<b>2)</b> 4219
<b>3)</b> 851	<b>4)</b> 37
<b>5)</b> 602	<b>6)</b> 743

# Write the compact numeral.

<b>1)</b> 80 + 7	<b>2)</b> 30 + 2
<b>3)</b> 900 + 60 + 6	<b>4)</b> 500 + 6
<b>5)</b> 3000 + 400 + 90 + 7	<b>6)</b> 8000 + 500 + 20 + 2
<b>7)</b> 100 + 10 + 9	<b>8)</b> 7000 + 40 + 3
<b>9)</b> 400 + 70 + 3	<b>10)</b> 2000 + 900 + 60 + 1
<b>11)</b> 200 + 80 + 7	<b>12)</b> 7000 + 500 + 20 + 8



## Name of number as an expanded numeral.

<b>1)</b> 2138	<b>2)</b> 9460
<b>3)</b> 6875	<b>4)</b> 4327
<b>5)</b> 7009	<b>6)</b> 6248
<b>7)</b> 7030	<b>8)</b> 6208

### Place value chart

### **Abacus**



### Place value chart

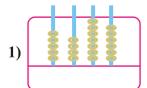
Th	Н	T	О
7	2	5	3

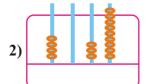
### **Expanded numeral**

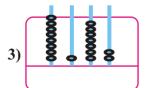
$$7000 + 2000 + 50 + 3$$

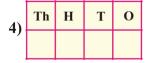
Here are three ways to show the number whose compact numeral is 7253

## Write the compact numeral for the number.









5)	Th	Н	T	O
3)	2	1	1	8



# Name the digits.

1) 7523

Th	Н	Т	0
?	?	?	?

2) 9534

Th	Н	T	0
?	?	?	?

3) 1861

Th	Н	T	O
?	?	?	?

<u>5679</u>

thousands hundreds tens ones
5 6 7 9

 $\frac{5}{100}$  ... thousands ...  $\frac{6}{100}$  ... hundreds, ...  $\frac{7}{100}$  ... tens and ...  $\frac{9}{100}$  ... ones equals ...  $\frac{5}{100}$ 

### Put these numbers in a value chart.

	thousands	hundreds	tens	ones	
<b>1)</b> 2439					
thousands, hundreds, tens and ones equals					
	thousands	hundreds	tens	ones	
<b>2)</b> 7801	thousands	hundreds	tens	ones	
<b>2)</b> 7801	thousands	hundreds	tens	ones	



<b>3)</b> 5420		thousands	hundreds	tens	ones
	<b>3)</b> 5420				
thousands, hundreds, tens and ones equals	4 1 1 1	1	,	1	1

		<b>Thousands</b>			<u>Ones</u>			
	_	hundreds	tens	ones	hundreds	tens	ones	
<u>720124</u>		7	2	0	1	2	4	

# Draw the value chart for the numbers below.

<b>1)</b> 91645			

**2)** 56021

**3)** 81652

**4)** 329752