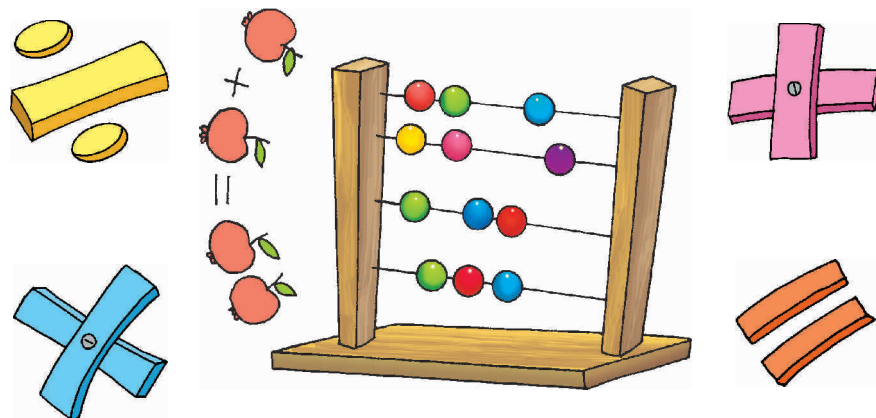


Start With Maths

3



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Preface

Start With Maths Introductory and **Parts 1–5** is a series of six books meant for pre-primary class and classes 1 to 5. This child-friendly series introduces children to the **fascinating world of mathematics** and creates an abiding interest in the mathematics subject. All mathematical concepts are introduced in a step-by-step manner, drawing examples from everyday life. A large number of examples have been given to make the understanding of concepts easier.

Some salient features of the series are :

- ☞ Completely based on the latest **NCERT syllabus**. The books are also suitable for various **State Boards**.
- ☞ Wherever required, **appropriate illustrations** have been given to help in visualization of abstract mathematical concepts.
- ☞ Every chapter begins with the **revision of the concepts learnt earlier**.
- ☞ **Points to Remember** enable the child to **recapitulate important points**.
- ☞ **Exercises** are **well graded** and contain an **ample number of questions**. Special emphasis has been laid on word problems.
- ☞ **Maths Lab Activities** focus on **hands-on learning** and **consolidation of mathematical concepts**.
- ☞ **Mental maths questions** develop the skill of doing **quick calculations**.
- ☞ **Worksheets** are **activity-based** and make learning of concepts an enjoyable experience.
- ☞ **Brain Teasers** contain questions which **challenge** as well as **broaden the mental horizons**.
- ☞ **Test Papers** are comprehensive and **test the level of understanding of the child**.


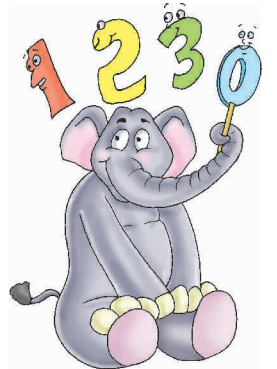
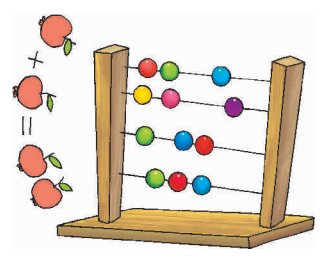

We are confident that this series will have a positive influence on children and encourage them to further explore the world of mathematics.

We look forward to your response to the series. Any suggestions for the improvement of the books are most welcome.

The Publishers

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Revision of Numerals

Let us recapitulate what we have learnt in the previous classes.

The digits 0, 1, 2, 3, 4, 5, 6, 7, 8, 9 are used to write any number.

We have one-digit numbers

0, 1, 2, 3, 4, ..., 9.

The two-digit numbers are

10, 11, ..., 99.

The three-digit numbers are

100, 101, ..., 999.

The counting numbers 1, 2, 3, ... are known as natural numbers.



1. Fill in the blanks.

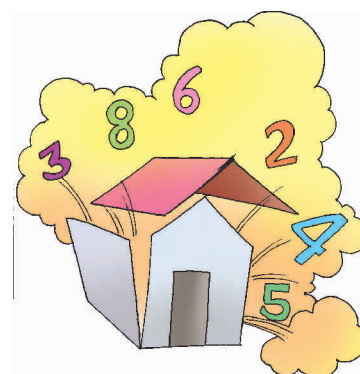
- (a) digits are used to write the number system.
- (b) The number name of 651 is
- (c) There are one-digit numbers.
- (d) The smallest three-digit number is
- (e) The largest one-digit number is

2. Write in words.

- (a) 769
- (b) 355
- (c) 77
- (d) 101
- (e) 61

3. Write in figures.

- (a) Two hundred thirty-three
- (b) Eight hundred seventy-nine
- (c) One hundred fifty-three
- (d) Five hundred seventy-seven
- (e) Forty-seven



4. Write all the 3-digit numbers using the digits. Underline the greatest number and encircle the smallest number.

- (a) 5, 8, 9
- (b) 6, 0, 7
- (c) 3, 6, 5
- (d) 4, 1, 7
- (e) 2, 1, 9

5. Arrange in ascending order (from the smallest to the greatest).

- | | | | | | |
|-----------------------------|--|--|--|--|--|
| (a) 515, 523, 516, 509, 581 | | | | | |
| (b) 365, 635, 653, 356, 563 | | | | | |
| (c) 819, 189, 198, 981, 918 | | | | | |
| (d) 243, 303, 315, 232, 237 | | | | | |
| (e) 487, 459, 568, 563, 380 | | | | | |

6. Write in descending order (from the greatest to the smallest).

- | | | | | | |
|-----------------------------|--|--|--|--|--|
| (a) 199, 103, 187, 156, 176 | | | | | |
| (b) 207, 4, 99, 916, 855 | | | | | |
| (c) 423, 80, 432, 56, 531 | | | | | |
| (d) 306, 603, 36, 63, 360 | | | | | |
| (e) 771, 785, 715, 762, 791 | | | | | |

7. What comes before?

786	787
	532
	615
	600
	419
	316
	218
	100
	979
	851

8. What comes after?

452	453
207	
352	
469	
562	
930	
819	
643	
757	
654	

9. What comes in between?

407	408	409
251		253
387		389
981		983
846		848
731		733
630		632
517		519
111		113
87		89

10. Use of the signs ‘=’, ‘>’, ‘<’. The signs = (equal to), > (greater than), < (less than) are used to compare any two numbers.

Example : $81 = 81$

$75 > 49$

$3 < 15$

$515 > 5$

Fill in the blanks with the correct sign.

(a) 185 186

(b) 309 209

(c) 715 715

(d) 63 36

(e) 195 198

(f) 457 561

(g) 887 886

(h) 419 419

(i) 739 839

(j) 156 156



11. Add the following.

(a)

$$\begin{array}{r} 673 \\ + 312 \\ \hline \\ \hline \end{array}$$

(b)

$$\begin{array}{r} 898 \\ + 101 \\ \hline \\ \hline \end{array}$$

(c)

$$\begin{array}{r} 557 \\ + 231 \\ \hline \\ \hline \end{array}$$

(d)

$$\begin{array}{r} 356 \\ + 442 \\ \hline \\ \hline \end{array}$$

(e)

$$\begin{array}{r} 225 \\ + 124 \\ \hline \\ \hline \end{array}$$

(f)

$$\begin{array}{r} 556 \\ + 403 \\ \hline \\ \hline \end{array}$$

12. Solve the following.

$$\begin{array}{r} 521 \\ + 326 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 326 \\ + 521 \\ \hline \\ \hline \end{array}$$

Observation : Changing the order of the numbers added will not change the sum.

13. See the pattern and complete the series.

- | | | | | | | |
|-----|------|------|------|--|--|--|
| (a) | 35, | 33, | 31, | | | |
| (b) | 111, | 121, | 131, | | | |
| (c) | 215, | 220, | 225, | | | |
| (d) | 107, | 207, | 307, | | | |
| (e) | 118, | 113, | 108, | | | |

14. Write in hundreds, tens and ones.

861 — 8 hundreds, 6 tens and 1 ones

- (a) 747
 (b) 543
 (c) 658
 (d) 409
 (e) 310

15. Write in expanded form.

- (a) 559
 (b) 239
 (c) 636



(d) 205

(e) 190

16. Practice multiplication.

(a)
$$\begin{array}{r} 64 \\ \times 2 \\ \hline \\ \hline \end{array}$$

(b)
$$\begin{array}{r} 43 \\ \times 9 \\ \hline \\ \hline \end{array}$$

(c)
$$\begin{array}{r} 86 \\ \times 9 \\ \hline \\ \hline \end{array}$$

(d)
$$\begin{array}{r} 102 \\ \times 9 \\ \hline \\ \hline \end{array}$$

(e)
$$\begin{array}{r} 118 \\ \times 8 \\ \hline \\ \hline \end{array}$$

(f)
$$\begin{array}{r} 333 \\ \times 3 \\ \hline \\ \hline \end{array}$$

17. Find the quotient and the remainder.

(a) $84 \div 7$

(b) $75 \div 5$

(c) $92 \div 8$

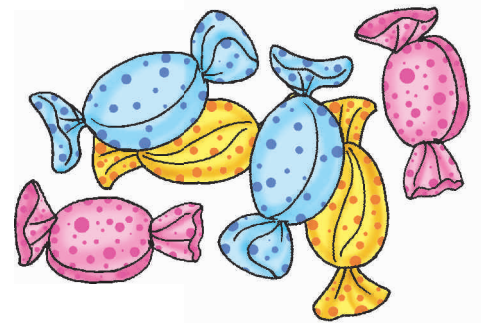
(d) $4 \overline{)786}$

(e) $8 \overline{)888}$

(f) $108 \div 9$

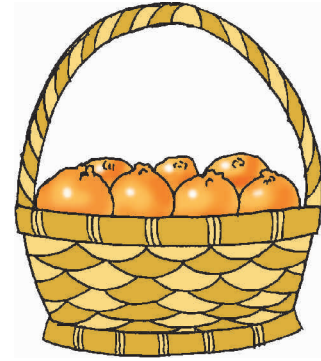
18. Problem sums.

(a) A shopkeeper sold 516 toffees on Monday, 146 toffees on Tuesday and 396 toffees on Wednesday. How many toffees did he sell in all?



(b) A man purchased 255 books for the library. 59 books were damaged by rats. How many books were in good condition?

- (c) A fruit basket contains 45 oranges. How many oranges are there in 9 baskets?



- (d) A factory produces 39 cycles in 3 days. How many cycles does it produce in 1 day?

- (e) Reena goes shopping. She buys

Ruler for ₹ 1.50
Copy for ₹ 2.75
Eraser for ₹ 0.75
Total _____



She gives the shopkeeper a ten-rupee note. How much will he return?

Mental Maths ?

1. Give the successor of

- (a) 19 (b) 321 (c) 145 (d) 172 (e) 429

2. Give the predecessor of

- (a) 30 (b) 241 (c) 639 (d) 51 (e) 431

3. Find the sum

- (a) $19 + 9 =$ (b) $33 + 33 =$
(c) $8 + 8 + 8 =$ (d) $63 + 37 =$
(e) $22 + 23 =$ (f) $40 + 50 =$

4. Find the difference

(a) $599 - 499 =$

(b) $420 - 410 =$

(c) $19 - 9 =$

(d) $63 - 23 =$

(e) $59 - 40 =$

(f) $70 - 30 =$

5. Find the product

(a) $16 \times 5 =$

(b) $11 \times 3 =$

(c) $44 \times 2 =$

(d) $18 \times 8 =$

(e) $19 \times 2 =$

(f) $81 \times 43 \times 0 =$



- ⦿ Successor of a number is 1 more than the given number.
- ⦿ Predecessor of a number is 1 less than the given number.
- ⦿ Ascending order of numbers is arrangement of numbers from smallest to greatest.
- ⦿ Descending order of numbers is arrangement of numbers from greatest to smallest.
- ⦿ The smallest one-digit number is 0.
- ⦿ The greatest one-digit number is 9.
- ⦿ The smallest two-digit number is 10.
- ⦿ The greatest two-digit number is 99.
- ⦿ The smallest three-digit number is 100.
- ⦿ The greatest three-digit number is 999.



2 Extension of Counting Numbers— Four-Digit Numbers



In the previous class, we have learnt numbers up to 999.

Let us consider the successor of 999.

$$999 + 1 = 1000$$

1000 is read as one thousand.

We have seen earlier that

$$867 = 8 \text{ hundreds} + 6 \text{ tens} + 7 \text{ ones}$$

$$456 = 4 \text{ hundreds} + 5 \text{ tens} + 6 \text{ ones}$$

$$348 = 3 \text{ hundreds} + 4 \text{ tens} + 8 \text{ ones}$$

In expanded form :

$$243 = 200 + 40 + 3$$

$$569 = 500 + 60 + 9$$

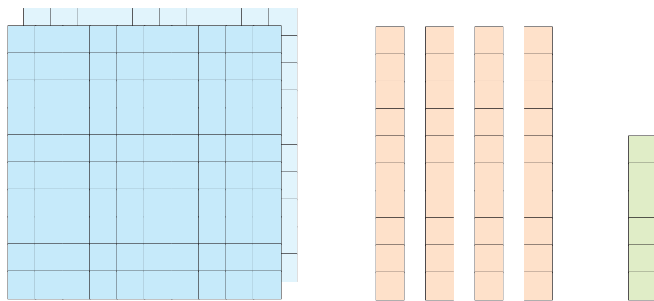
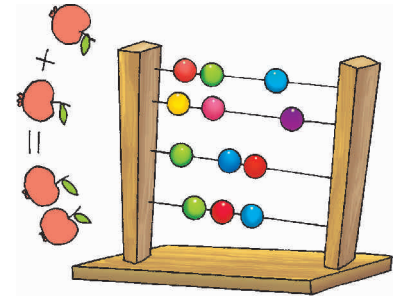
$$421 = 400 + 20 + 1$$

In short form :

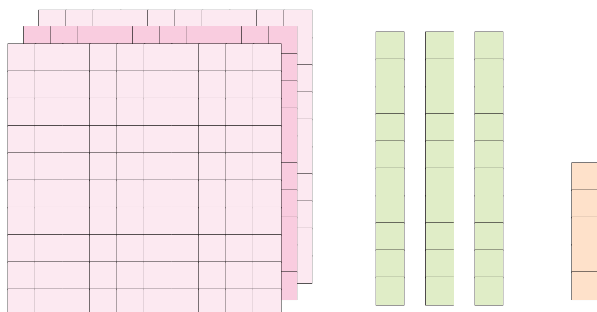
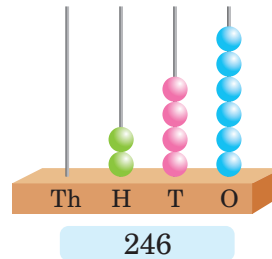
$$200 + 20 + 2 = 222$$

$$400 + 80 + 7 = 487$$

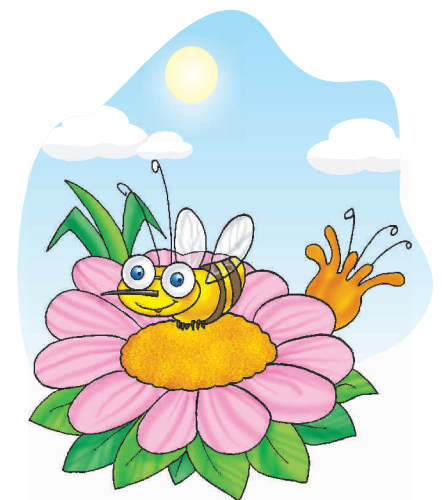
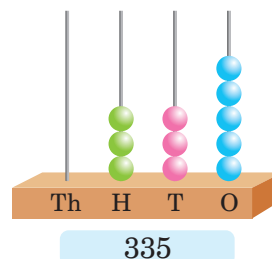
$$700 + 60 + 8 = 768$$



2 hundreds + 4 tens + 6 ones
($200 + 40 + 6 = 246$)



3 hundreds + 3 tens + 5 ones
($300 + 30 + 5 = 335$)



Try yourself.

$456 = \dots \text{ hundreds} + \dots \text{ tens} + \dots \text{ ones}$

$152 = \dots \text{ hundreds} + \dots \text{ tens} + \dots \text{ ones}$

$514 = \dots \text{ hundreds} + \dots \text{ tens} + \dots \text{ ones}$

$987 = \dots \text{ hundreds} + \dots \text{ tens} + \dots \text{ ones}$

$754 = \dots \text{ hundreds} + \dots \text{ tens} + \dots \text{ ones}$

$235 = \dots \text{ hundreds} + \dots \text{ tens} + \dots \text{ ones}$

$347 = \dots \text{ hundreds} + \dots \text{ tens} + \dots \text{ ones}$

$555 = \dots \text{ hundreds} + \dots \text{ tens} + \dots \text{ ones}$

$841 = \dots \text{ hundreds} + \dots \text{ tens} + \dots \text{ ones}$

$476 = \dots \text{ hundreds} + \dots \text{ tens} + \dots \text{ ones}$

$645 = \dots \text{ hundreds} + \dots \text{ tens} + \dots \text{ ones}$

$722 = \dots \text{ hundreds} + \dots \text{ tens} + \dots \text{ ones}$

$362 = \dots \text{ hundreds} + \dots \text{ tens} + \dots \text{ ones}$

$298 = \dots \text{ hundreds} + \dots \text{ tens} + \dots \text{ ones}$

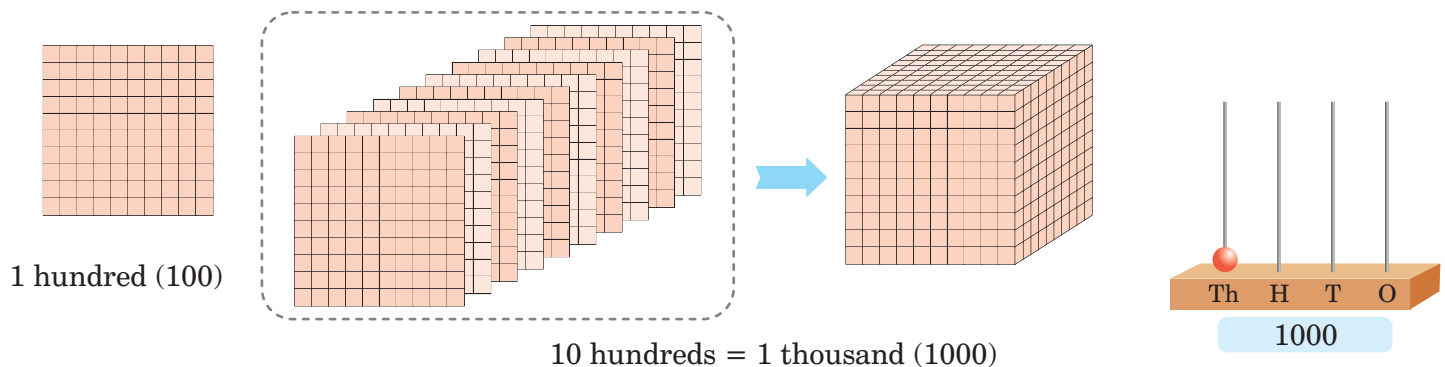
We know that

$10 \text{ ones} = 1 \text{ ten} = 10 = 10 \times 1$

$10 \text{ tens} = 1 \text{ hundred} = 100 = 10 \times 10$



Counting by Thousands



999 is the greatest 3-digit number.

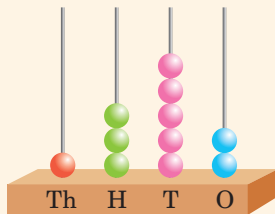
$999 + 1 = 1000$

1000 is the smallest 4-digit number.

The orange digit tells us **1000** **2000** **3000** **4000** **5000**

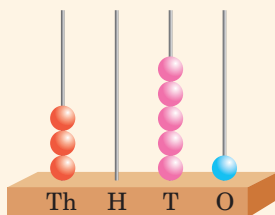
how many thousands. **6000** **7000** **8000** **9000**

Look at the number displayed on the abacus.



The number displayed is 1352.

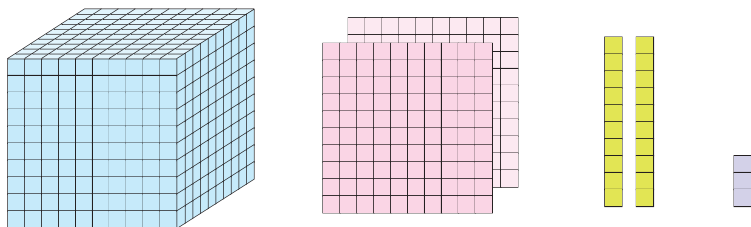
It is read as “one thousand three hundred fifty-two”.



The number displayed is 3051 and the number name is “three thousand fifty-one”.

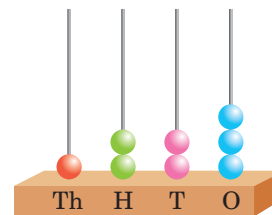
9999 is the greatest 4-digit number.

10 hundreds = 1 thousand = 1000 = 10×100

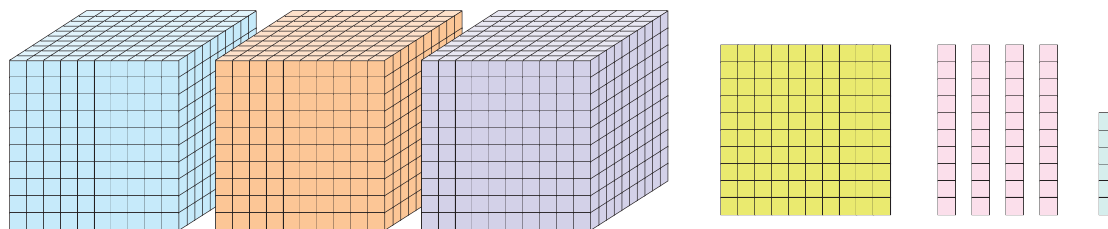


1 thousand + 2 hundreds + 2 tens + 3 ones

$(1000 + 200 + 20 + 3 = 1223)$

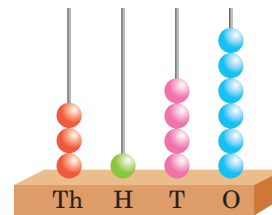


1223

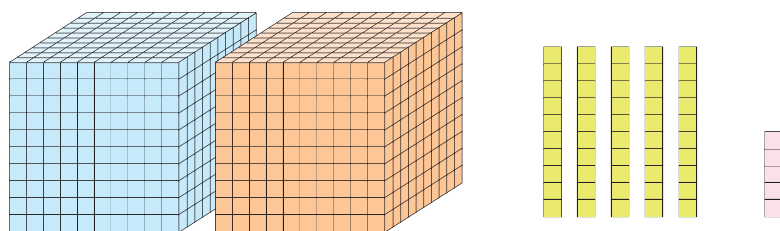


3 thousands + 1 hundred + 4 tens + 6 ones

$(3000 + 100 + 40 + 6 = 3146)$

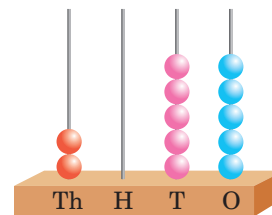


3146



2 thousands + 0 hundreds + 5 tens + 5 ones

$(2000 + 0 + 50 + 5 = 2055)$



2055



Exercise 2.1

1. Fill in the blanks.

- (a) 3 thousands + 2 hundreds + 8 tens + 4 ones = $3000 + 200 + 80 + 4 = 3284$
- (b) 5 thousands + 3 hundreds + 7 tens + 2 ones = =
- (c) 6 thousands + 5 hundreds + 4 tens + 8 ones = =
- (d) 1 thousand + 6 hundreds + 3 tens + 7 ones = =
- (e) 2 thousands + 4 hundreds + 6 tens + 8 ones = =
- (f) 1 thousand + 3 hundreds + 5 tens + 8 ones = =
- (g) 6 thousands + 5 hundreds + 3 tens + 4 ones = =
- (h) 2 thousands + 6 hundreds + 3 tens + 9 ones = =
- (i) 7 thousands + 3 hundreds + 8 tens + 5 ones = =
- (j) 8 thousands + 1 hundred + 5 tens + 9 ones = =
- (k) 7 thousands + 8 hundreds + 3 tens + 7 ones = =
- (l) 6 thousands + 5 hundreds + 2 tens + 8 ones = =

2. Write in the short form.

- (a) $1000 + 500 + 50 + 5 = 1555$
- (b) $5000 + 700 + 20 + 8 =$
- (c) $3000 + 100 + 20 + 1 =$
- (d) $8000 + 300 + 0 + 3 =$
- (e) $2000 + 800 + 90 + 0 =$
- (f) $9000 + 900 + 90 + 9 =$
- (g) $4000 + 100 + 30 + 2 =$
- (h) $6000 + 700 + 20 + 0 =$
- (i) $2000 + 600 + 0 + 0 =$
- (j) $7000 + 400 + 10 + 1 =$

3. Write in the expanded (long) form.

- (a) $2513 = 2000 + 500 + 10 + 3$
- (b) $1111 =$
- (c) $3420 =$
- (d) $5214 =$
- (e) $9876 =$
- (f) $6789 =$
- (g) $1234 =$
- (h) $4253 =$
- (i) $2155 =$
- (j) $7513 =$

Number Name

Consider a 4-digit number 7856.

It consists of 7 thousands, 8 hundreds, 5 tens and 6 ones. Hence, the number name is seven thousand eight hundred fifty-six .

Now consider 6900.

It has 6 thousands, 9 hundreds, 0 tens and 0 ones. Hence, the number name is six thousand nine hundred.

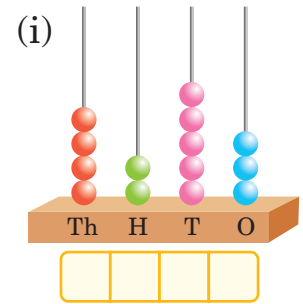
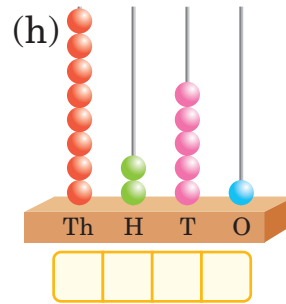
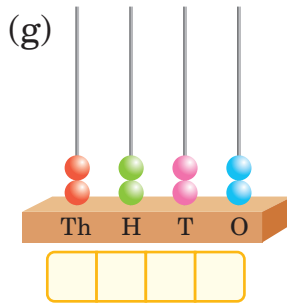
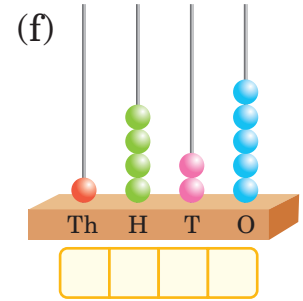
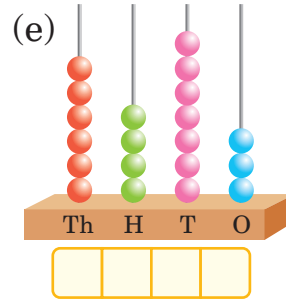
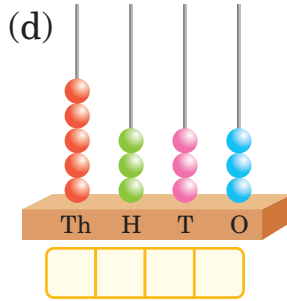
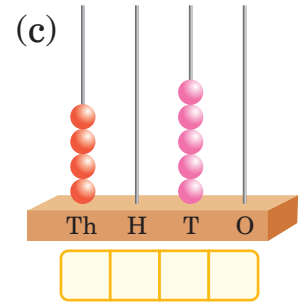
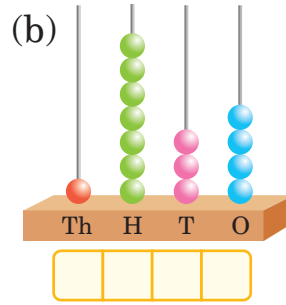
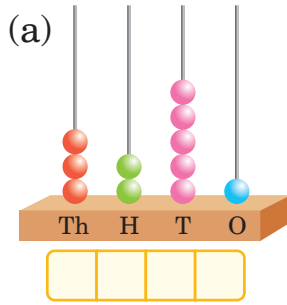


Exercise 2.2

1. Write the number names.

- | | | |
|-----|--------|---------------------|
| (a) | 2011 = | Two Thousand Eleven |
| (b) | 3512 = | |
| (c) | 4125 = | |
| (d) | 6867 = | |
| (e) | 2667 = | |
| (f) | 6007 = | |
| (g) | 2385 = | |
| (h) | 7891 = | |
| (i) | 8786 = | |
| (j) | 5444 = | |
| (k) | 7153 = | |
| (l) | 9781 = | |

2. Write the number displayed on the abacus.



3. Write in words. (Learn a few more number names)

- (a) 3677
- (b) 4321
- (c) 5005
- (d) 6798
- (e) 6095
- (f) 1370
- (g) 1929
- (h) 2333
- (i) 4444
- (j) 2020



4. Write all the numbers between

(a) 1000 and 1010

(b) 5870 and 5880

5. Write the next three numbers.

(a) 3521

(b) 2019

6. Write the numbers backwards.

(a)

1015	1014				
------	------	--	--	--	--

(b)

2221	2220				
------	------	--	--	--	--

(c)

6896	6895				
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Write in figures. Consider the following.

Examples (a) Five thousand seventeen

(b) Two thousand four hundred fifty-seven

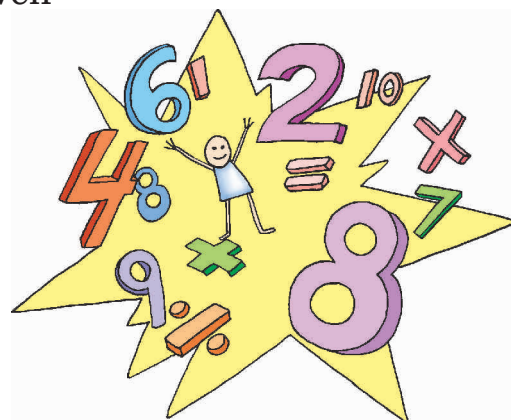
The above numbers can be written as

Th	H	T	O
5	0	1	7
2	4	5	7

Therefore, the numbers in figures are

(a) 5017

(b) 2457



Place Value – Face Value



To find the place value of a digit in a four-digit number, we proceed in the same way as we do for a three-digit number. But here we have to consider the fourth place also which is the thousands place.

Consider the number

$$\begin{aligned} 6839 &= 6 \text{ thousands} + 8 \text{ hundreds} + 3 \text{ tens} + 9 \text{ ones} \\ &= 6000 + 800 + 30 + 9 \end{aligned}$$



Here the place value of

6 is 6000 since 6 is in the thousands place.

8 is 800 since 8 is in the hundreds place.

3 is 30 since 3 is in the tens place.

9 is 9 since 9 is in the ones place.

The place value of any digit depends upon the place in which it is written. It changes according to the place. The face value of any digit is the same as the digit itself. It does not change.

Examples (a) Consider $\underline{5}893$.

Place value of 8 is 800.

Face value of 8 is 8.

(b) Consider $\underline{4}9\underline{4}3$

Place value of 4 is 4000 (in the thousands place)

Place value of 4 is 40 (in the tens place)

Face value = 4 in both cases.



Below is shown the table of thousands, hundreds, tens and ones place as in example (b).

Th	H	T	O	Place Value of 4
			4	4
		4	1	40
	4	9	6	400
4	5	1	3	4000

Note : The value of a number increases ten times as it moves to the left.



Exercise 2.3

1. Write in figures.

(a) Four thousand six hundred forty-seven

(b) Seven thousand eight hundred sixteen

- (c) One thousand eight hundred twenty
- (d) Six thousand six hundred sixty-six
- (e) Five thousand four
- (f) Three thousand
- (g) Two thousand two hundred
- (h) Nine thousand ninety
- (i) Eight thousand eight hundred eight
- (j) Four thousand fifty-five



-
-
-
-
-
-
-
-

2. Write the number obtained.

- (a) 2 thousands, 6 hundreds, 5 tens together
- (b) 7 thousands, 3 hundreds, 3 tens, 3 ones together
- (c) 1 thousand, 5 hundreds, 5 tens, 5 ones together
- (d) 9 thousands, 9 tens together
- (e) 8 thousands, 8 ones together

-
-
-
-
-

3. Write the number in expanded form. (For practice)

Example $9716 = 9000 + 700 + 10 + 6$

- (a) 8325
- (b) 7176
- (c) 9202
- (d) 4565
- (e) 3211
- (f) 5059
- (g) 4112
- (h) 1111
- (i) 1001
- (j) 2412

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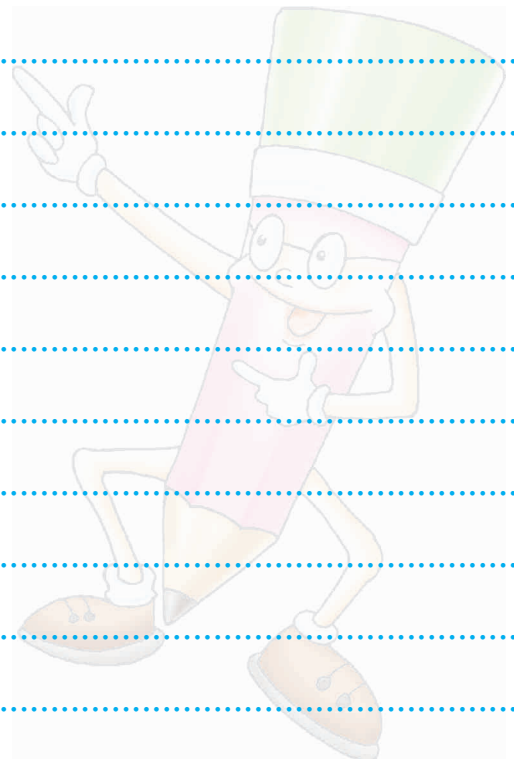
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4. Write in short form. (For practice)

- (a) $7000 + 500 + 40 + 6 = \dots\dots\dots$ (b) $8000 + 100 + 30 + 5 = \dots\dots\dots$
 (c) $6000 + 500 + 60 + 1 = \dots\dots\dots$ (d) $9000 + 400 + 70 + 7 = \dots\dots\dots$
 (e) $3000 + 30 + 3 = \dots\dots\dots$ (f) $2000 + 5 = \dots\dots\dots$
 (g) $1000 + 100 + 10 + 1 = \dots\dots\dots$ (h) $8000 + 900 + 90 + 9 = \dots\dots\dots$
 (i) $7000 + 30 + 9 = \dots\dots\dots$ (j) $6000 + 700 + 90 + 8 = \dots\dots\dots$

5. Complete the table.

	Number	Thousands	Hundreds	Tens	Ones	Number Name
	5274	5	2	7	4	Five thousand two hundred seventy-four
(a)	9835					
(b)	3451					
(c)	7481					
(d)	6355					
(e)	1502					
(f)	1484					
(g)	1559					
(h)						Nine thousand fifty-five
(i)						One thousand seven
(j)						Seven thousand four hundred eighty-seven

6. In each of the following, write the place value of the underlined digit.

- (a) 8123 $\dots\dots\dots$ (b) 2345 $\dots\dots\dots$
 (c) 4306 $\dots\dots\dots$ (d) 3998 $\dots\dots\dots$

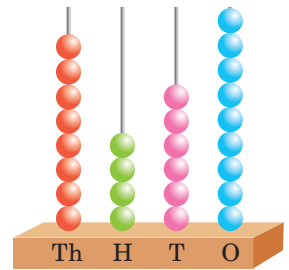
- (e) 5017 (f) 3456
 (g) 7258 (h) 4563
 (i) 9069 (j) 6464
 (k) 5264 (l) 6328

7. Give the place value and the face value of the digits in the box.

- (a) 63**7**3 (b) 9**2**31 (c) **3**849 (d) 90**0**8 (e) **2**065

8. Write the place value and face value of each of the digits in the following numbers. Also write the number name and display the number on the abacus in your notebook.

	Number	Face Value	Place Value
Example	8 4 6 9		
		9	9
		6	60
		4	400
		8	8000



Number name : Eight thousand four hundred sixty-nine.

- (a) 7243 (b) 7148 (c) 6938 (d) 8826 (e) 5093

9. Fill in the boxes.

Example

7	3	9	3
			3
			90
			300
			7000

(a)

2	4	9	6

(b)

			7
			10
			900
			1000

(c)

4			7
			90
			300

- 10.** Write the number consisting of 2 tens, 3 hundreds, 9 ones and 7 thousands.
11. My car number has 6 hundreds, 2 tens, 7 ones and 2 thousands. Can you write it?
12. Write the place value of the two sixes in 6867 and find their difference.

Comparison of Numbers



The signs '=' (equal to), '>' (greater than) and '<' (less than) are used to compare any two numbers.

The closed end of the signs '>', '<' always points towards the smaller number.

Example $8 > 6$, $41 < 85$



1. The number with more digits is always greater.

Example $1031 > 985$

2. When two numbers have the same number of digits (consider 4-digits).

(a) Consider the digit in the thousands place.

Example 2035, 3035

$$2 < 3$$

$$\therefore 2035 < 3035 \quad \text{or} \quad 3035 > 2035$$

\therefore The number having the greater digit in the thousands place is greater.

(b) If the digit in the thousands place is the same, then consider the digits in the hundreds place.

Example 2146, 2056

$$1 > 0$$

$$\therefore 2146 > 2056 \quad \text{or} \quad 2056 < 2146$$

(c) If the digit in the thousands and hundreds place are the same, then compare the digits in the tens place. The number having the greater digit is greater.

Example 2146, 2156

$$4 < 5$$

$$\therefore 2146 < 2156 \quad \text{or} \quad 2156 > 2146$$

(d) If the numbers have equal digits in the thousands, hundreds and tens place then compare the digits in the ones place.

Example 2143, 2146

$$3 < 6$$

$$\therefore 2143 < 2146 \quad \text{or} \quad 2146 > 2143$$

To form the greatest and the smallest four-digit number with four given digits.

Example

Let the given digits be 2, 8, 6, 3.
 Arrange the digits in descending order.

8, 6, 3, 2

∴ The greatest number is 8632.

Arrange the digits in ascending order 2, 3, 6, 8.

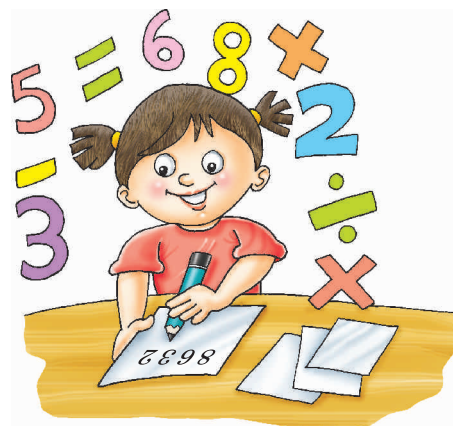
∴ The smallest number is 2368.

Consider the digits 2, 0, 7, 3.

Then the greatest number formed is 7320. For the smallest number, 0 cannot be written in the thousands place because

$0237 = 237$ a 3-digit number.

So 0 must be written in the hundreds place and the smallest number is 2037.



Exercise 2.4

1. Fill in the blanks using '>', '<' or '='.

- | | |
|------------------------------------|------------------------------------|
| (a) 5017 <input type="text"/> 5107 | (b) 8134 <input type="text"/> 8143 |
| (c) 700 <input type="text"/> 7000 | (d) 6116 <input type="text"/> 6016 |
| (e) 4254 <input type="text"/> 4245 | (f) 8390 <input type="text"/> 8390 |
| (g) 4900 <input type="text"/> 4090 | (h) 5550 <input type="text"/> 5549 |
| (i) 3820 <input type="text"/> 5641 | (j) 9161 <input type="text"/> 9170 |
| (k) 2484 <input type="text"/> 2462 | (l) 3098 <input type="text"/> 3058 |



2. Write the following numbers in ascending order.

- (a) 7258, 2005, 4602, 5550, 9000
- (b) 4157, 2050, 5100, 6003, 4000
- (c) 1357, 3517, 1537, 3175, 3571
- (d) 8245, 4381, 5962, 7954, 1400
- (e) 4956, 5360, 7804, 7991, 1850

3. Write the following in descending order.

- (a) 9299, 9762, 9786, 9586, 9321
- (b) 8192, 7408, 7345, 8057, 8129
- (c) 4821, 3261, 3827, 2064, 3749
- (d) 8234, 7301, 7090, 8057, 1295
- (e) 4364, 2907, 3548, 9712, 8599

4. Write the greatest 4-digit number which can be formed by

- (a) 1, 4, 5, 4
- (b) 1, 0, 3, 2
- (c) 6, 5, 7, 8
- (d) 6, 8, 3, 6
- (e) 7, 4, 1, 8
- (f) 3, 2, 1, 7

5. Write the smallest 4-digit number which can be formed by

- (a) 5, 7, 9, 6
- (b) 3, 8, 6, 9
- (c) 0, 7, 9, 6
- (d) 9, 8, 9, 8
- (e) 5, 0, 9, 1
- (f) 2, 4, 3, 8

6. Use '>', '<', '=' to make the following statements true.

- (a) $45 + 5$ 50
- (b) $21 - 9$ 30
- (c) $121 + 5$ $90 + 36$
- (d) 7×3 3×5
- (e) $79 - 6$ 63
- (f) 1111 $1000 + 100 + 10 + 1$
- (g) $5000 + 600 + 3$ 5630
- (h) 4×8 2×16

7. Study the pattern and complete the series.

- (a) 1018, 1020, 1022,,,,
- (b) 2030, 2025, 2020,,,,
- (c) 4100, 4200, 4300,,,,
- (d) 2678, 3678, 4678,,,,

8. Fill in the boxes with the correct figures. Follow the instructions.

- (a) 1 more than 6873
- (b) 1 less than 5340
- (c) 1 more than 2299
- (d) 10 less than 9389
- (e) 10 more than 4769
- (f) 100 less than 3562
- (g) 100 more than 4555
- (h) 1000 less than 8909
- (i) 1000 more than 7656
- (j) 1000 less than 9999

9. Give the number before.

(a) 2031

(c) 4500

(e) 7119

(b) 4578

(d) 3210

(f) 3000

10. Give the number after.

(a) 3099

(c) 6376

(e) 5399

(b) 1218

(d) 7209

(f) 3999

Common Mistakes



Write the smallest 4-digit number using the digits 6, 1, 0, 8.

0168 (×) 1068 (✓)

0168 is a 3-digit number since 0 to the left is meaningless.

Lab Activity



To get an idea about odd and even numbers.

Material Required : Some marbles

Keep the marbles in a box. Take out 2 marbles at a time from the box. Continue the process till the time none or one marble is left in the box.

Count the number of marbles. If none are left, then the number is even. If one is left, the number is odd.



None are left.

∴ 18 is an even number

(The number of marbles = 18)



One marble is left.

∴ 19 is an odd number.

(The number of marbles = 19)

One marble left.

Repeat the same process by taking some marbles, for example, 15, 16, 17 marbles and find out which numbers are odd and which are even.

Conclusion : Numbers divisible by 2 are even numbers.

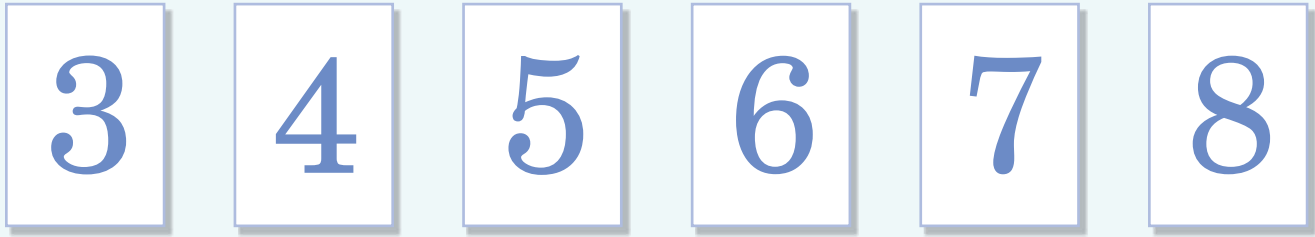
Numbers not divisible by 2 are odd numbers.

Place value

Understanding of place value of the digits in any given number.

Material Required : 6 blank cards.

Write the numbers 3, 4, 5, 6, 7, 8 on the cards.



Each child should select any 4 cards, then write number in the notebook.

Supposing the cards selected are 3, 5, 7, 8.

Example Number 3578

Shuffle the same cards and make a new number by writing the 1st card selected in the thousands place.

Example 7853

Repeat once again and write the 3rd number.

Example 5837

Numbers are	Th	H	T	O
(i)	3	5	7	8
(ii)	7	8	5	3
(iii)	5	8	3	7

In each number observe the place value of 5.

- (i) 500 (ii) 50 (iii) 5000

Find the sum of the 3 place values.

Do the same with another set of numbers.

Observation : The place value of a digit increases 10 times as it moves to the left and becomes $\frac{1}{10}$ th of the value as it moves to the right.



We are familiar with the digits 0, 1, 2, 3, 4, 5, 6, 7, 8, 9 and use them to represent any number. These digits and the method of representing numbers were developed by the Indians. The early Arab traders who came to India spread this to other countries. Due to this, the numerals are known as “**Hindu-Arabic Numerals**”.

The Roman System of Notation

This system was developed by the ancient Romans. Numerals are written by using 7 symbols. The symbols are

I, V, X, L, C, D, M

Each letter has a fixed value.

Roman Numerals	Values in Hindu-Arabic Numerals
I	1
V	5
X	10
L	50
C	100
D	500
M	1000

Before writing any number, we must make ourselves familiar with certain rules which must be followed strictly.

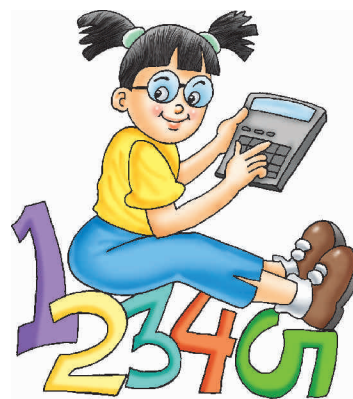


- (i) The symbols I, X, C and M may be repeated maximum thrice only.
- (ii) V, L and D cannot be repeated.

1. When the numerals are repeated, the number written is the sum of the numerals.

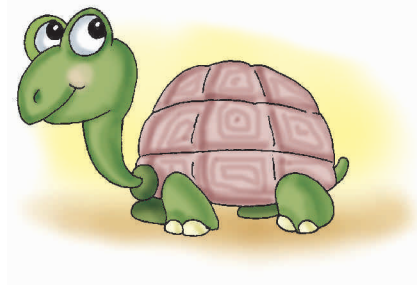
Example 1 $II = 1 + 1 = 2$
 $III = 1 + 1 + 1 = 3$

Similarly $XX = 20$
 $XXX = 30$
 $CC = 200$
 $CCC = 300$
 $MM = 2000$
 $MMM = 3000$



2. When a smaller number is placed to the right of the greater number, it is added to the greater number.

Example 2 $VI = V + I = 6$
 $XI = X + I = 11$
 $XII = X + I + I = 12$
 $XV = X + V = 15$
 $XVII = X + V + I + I = 17$



3. When any one of the numbers I, X, C is placed to the left of a greater number, it is subtracted from the greater.

Example 3 $IV = 5 - 1 = 4$
 $XL = 50 - 10 = 40$
 $IX = 10 - 1 = 9$
 $XC = 100 - 10 = 90$
 $CD = 500 - 100 = 400$
 $CM = 1000 - 100 = 900$



Remember 

I can be placed before V or X once only.
X can be placed before L or C once only.
C can be placed before D or M once only.

4. When a Roman numeral of smaller value is placed between two numerals of greater value, it is subtracted from the numeral on its right.

Example 4 $XIV = 10 + 5 - 1 = 14$

$XIX = 10 + 10 - 1 = 19$

Let us write from 1 to 20 using Roman symbols.

Hindu-Arabic Numerals	Roman Numerals
1	I
2	II
3	III
4	IV
5	V
6	VI
7	VII
8	VIII
9	IX
10	X
11	XI
12	XII
13	XIII
14	XIV
15	XV
16	XVI
17	XVII
18	XVIII
19	XIX
20	XX



Exercise 3.1

1. Write the Roman Numerals for the following.

- (a) Hindu-Arabic 1, 2, 3, 4, 5
 (b) Hindu-Arabic 16, 17, 18, 19, 20
 (c) Hindu-Arabic 21, 22, 23, 24, 25

2. Write the Hindu-Arabic Numerals for the following.

- (a) III IV V VI VII
 (b) XI XII XIII XIV XV
 (c) XXVI XXVII XXVIII XXIX XXX

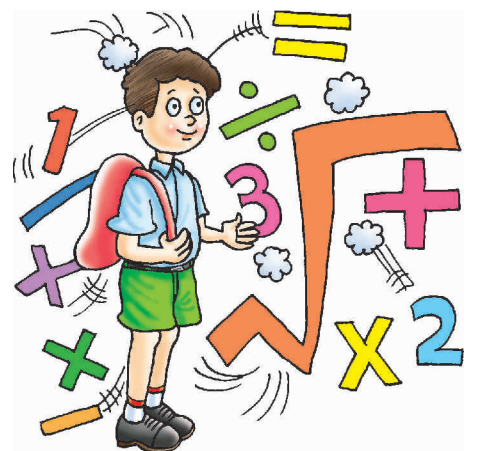
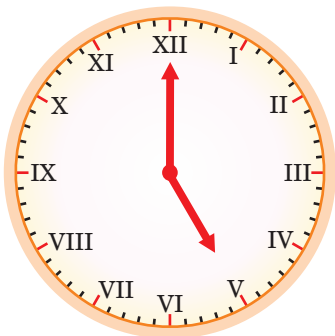
3. Are the following Roman Numerals written correctly? If not put a (X) next to it and correct it.

- (a) VI (b) IIV (c) IIII (d) XIX
 (e) VIX (f) VV (g) XIII (h) XVI
 (i) XXXX (j) VXV

4. Solve the following and write your answer in Roman numerals.

- (a) III + V = (b) X - II = (c) X + VI + V =
 (d) XX - IX + II = (e) XII + IX - XX = (f) 21 ÷ 3 =
 (g) 6 × 2 = (h) 25 - 3 - 5 = (i) 6 + 5 - 2 =

5. Can you tell the time?



6. Express in Roman Notation.

55, 67, 210, 301, 251

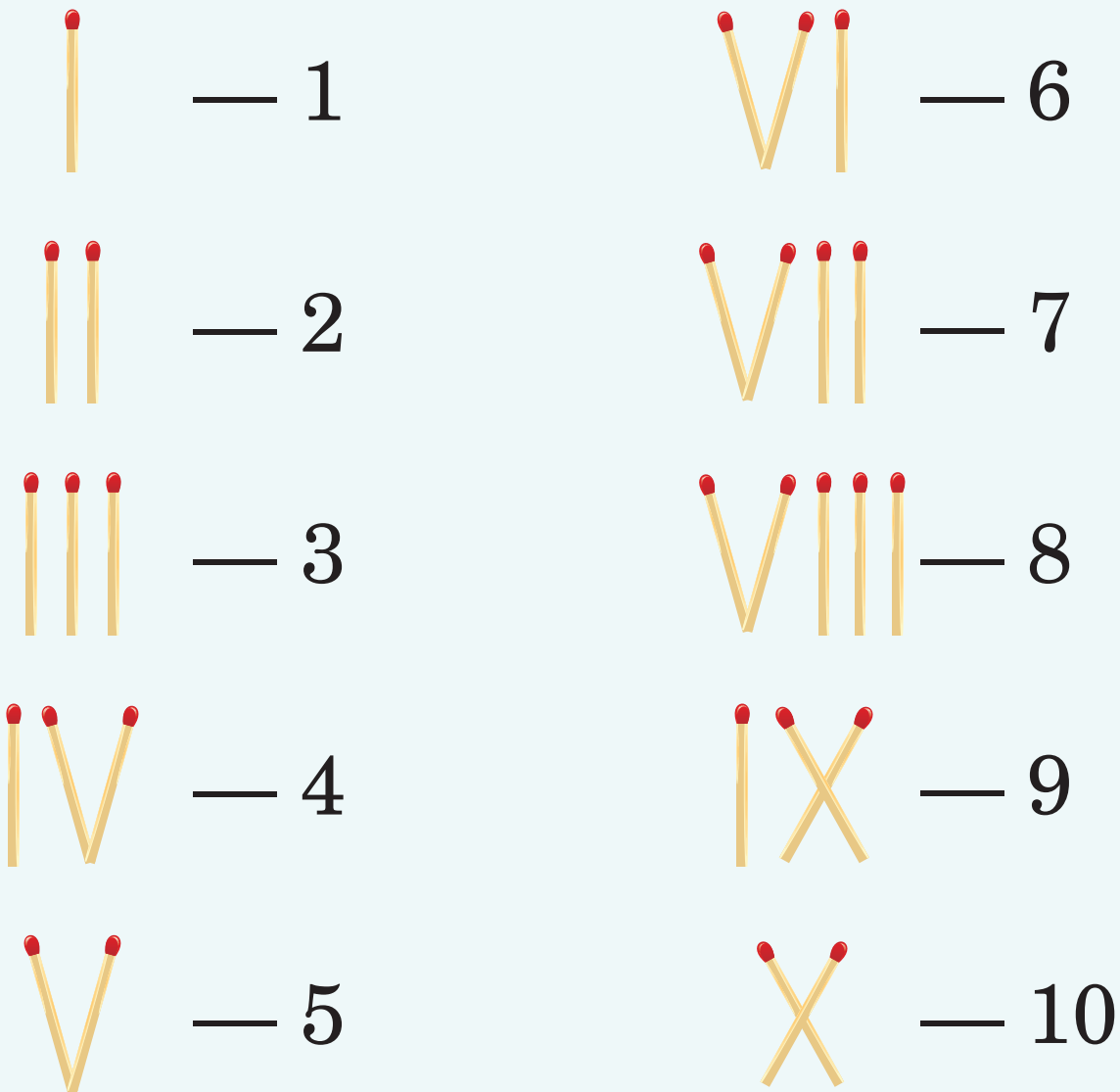
Lab Activity



To write Roman numerals with the help of match sticks

Material Required : Chart paper, matchsticks, fevicol

On chart paper stick the matchstick with fevicol to write the Roman numerals upto 10.



Write the following numbers with help of matchsticks on chart paper in Roman numerals.

15, 20, 19, 11, 17, 13, 14