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TERM - I

VOLUME - 2

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SCIENCE
SOCIAL SCIENCE

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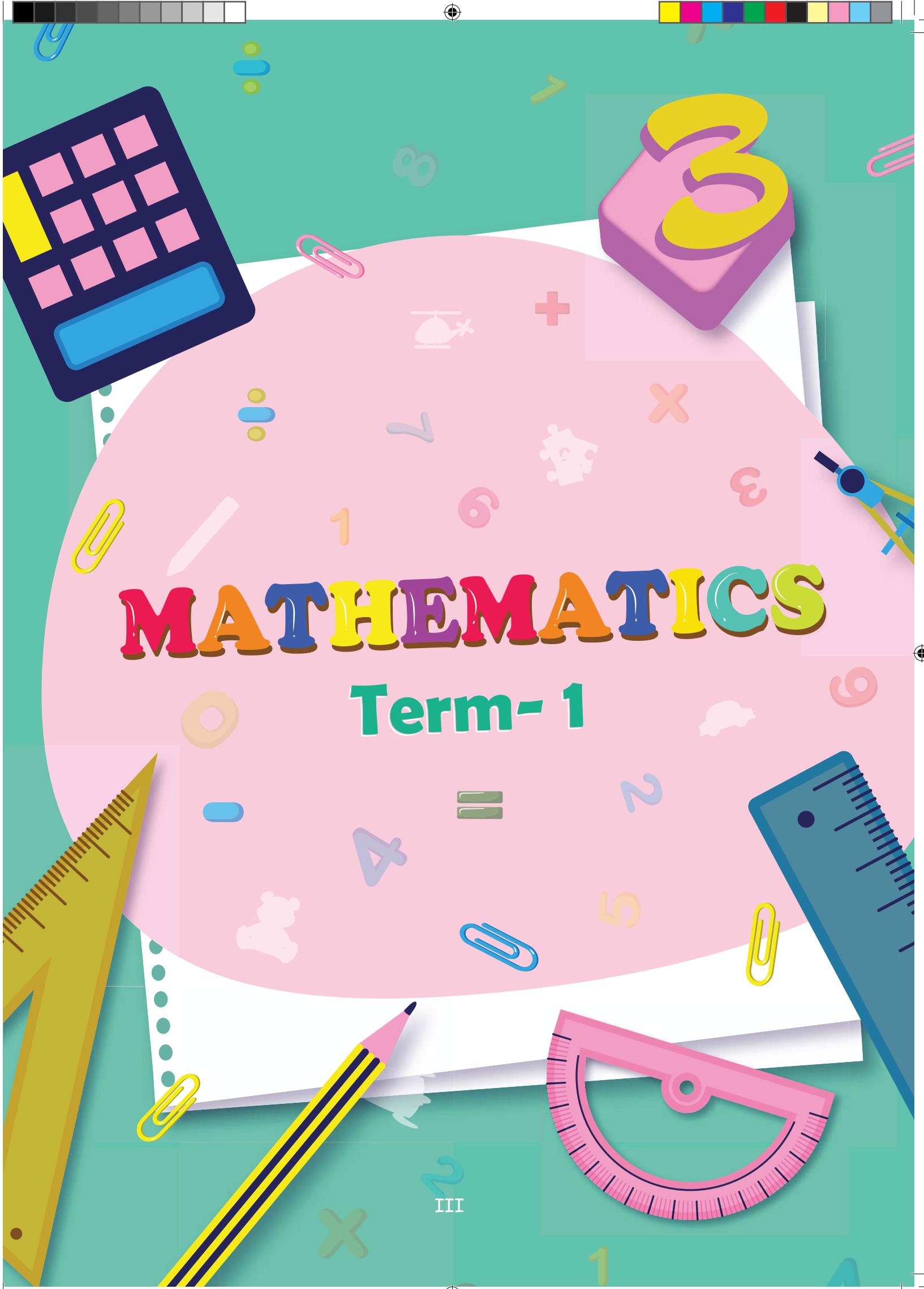
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E-BOOK



ASSESSMENT



DIGI-LINKS





UNIT - 1



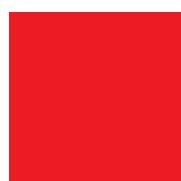
GEOMETRY



H9MJCK

Travel Through

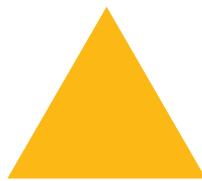
Basic Shapes



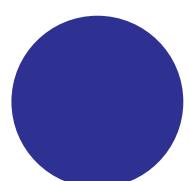
Square



Rectangle

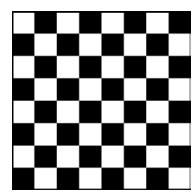
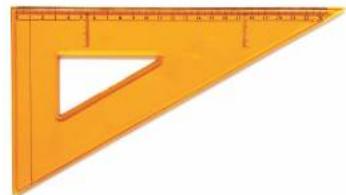


Triangle



Circle

Let us know the shapes of objects around us. Identify the shapes of the objects and Circle the squares with **Red**, rectangles with **Green**, triangles with **Yellow** and circles with **Blue** colours. Connect the objects of similar shapes.





1.1 Construction of 2D shapes



Let us make a square by folding a paper by following the given steps.

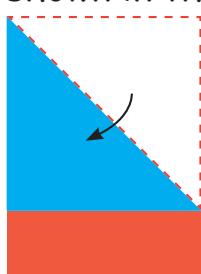
Step 1:

Take a paper



Step 2:

Fold the paper as shown in the figure.



Step 3:

Shade the extra portion in the bottom with red colour. Tear it off and keep it aside.



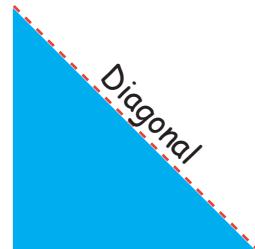
Step 4:

Open up the triangle. What do you observe?

You could see a square.

The crease in the middle of the square is called the 'Diagonal of the square'.

You can note that the diagonal divides the square into two triangles.



Try This

Can you find the other diagonal of the square by folding it the other way? If so, how many diagonals can you find for a square?.

Observe the number of sides and corners of a square.

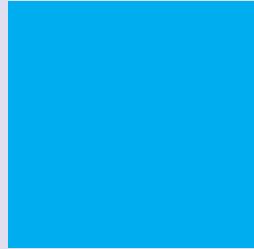
A square has **four** sides, **four** corners and **two** diagonals.



Properties of a square

We shall summarise the properties of a square as follows

- Square has four sides.
- All the four sides are equal.
- Square has four corners.
- Square has two diagonals.
- The two diagonals are equal.



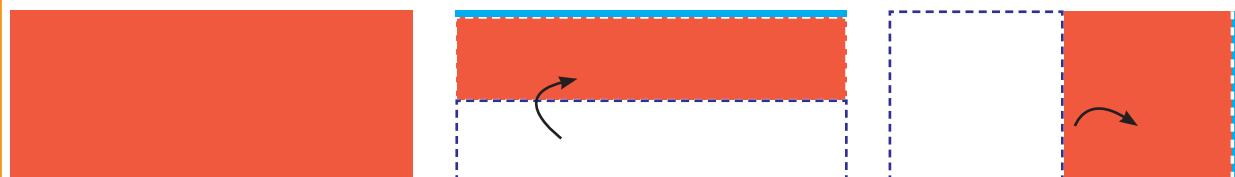
Teacher's note: Teacher can guide the children to do this paper folding activity.



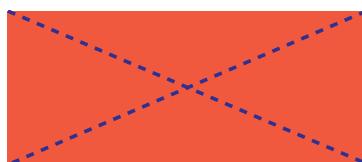


Let us make a rectangle by folding a paper

Take the red coloured piece which was kept aside. Observe its sides. Fold the opposite sides of the rectangle.



What do you observe? The sides coincide. Now we get opposite sides equal. Hence in a rectangle, opposite sides are equal.

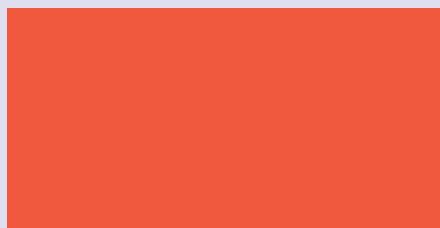


Fold the opposite corners as we did in the square. Observe the crease. It shows the diagonal of the rectangle.

properties of a rectangle

The properties of a rectangle are as follows

- Rectangle has four sides.
- Two opposite sides are equal.
- Rectangle has four corners.
- Rectangle has two diagonals.
- Two diagonals are equal.



Let us make a triangle by folding a paper

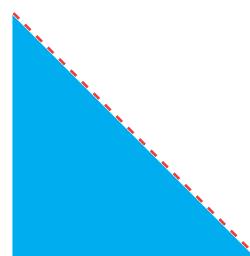
Fold the square along any of these diagonals to form a triangle.

Observe the Sides and corners of the triangle.

A triangle has **three** sides and **three** corners.

Cut the paper and make triangles of different kind.

Observe the length of the sides of the triangle.



Let us know



Isosceles triangle



Equilateral triangle



Scalene triangle



Try This

How many triangles can be made out of this square paper?





Let us draw a circle using pencil and Bangle.

Step 1:

Place a bangle on the paper as shown in figure.



Step 2:

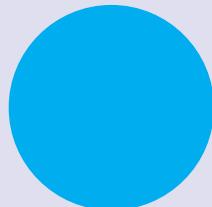
Trace the outline of the bangle with a curved line with the pencil until you reach the starting point, we get a circle.



Properties of a circle

On observing the circle drawn, we shall write the properties of it as follows.

- Circle is a closed curve
- Circle has no sides.
- Circle has no corners.
- Circle has a centre point.



Activity 1

Write the names of few objects in everyday use and mention their geometrical shapes. Example, Paper- Rectangle



Practice

- 1) Triangle has _____ corners.
- 2) Four sides of a square are _____.
- 3) Circle has _____ sides.
- 4) Rectangle has _____ diagonals.
- 5) Opposite sides of a rectangle are _____.
- 6) Circle has _____ centre point.

Teacher's note: Facilitate the children to explore the properties of shapes in various aspects.





1.2 Properties of 3D Objects



We can see many things around us have straight lines and curved lines.



Activity 2

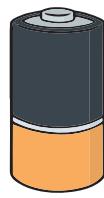
Tick the appropriate boxes to show the lines found in the given objects.

| Objects | | | | | |
|---------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Curved line | <input type="checkbox"/> |
| Straight line | <input type="checkbox"/> |

Plane Surface: Surface of few objects like walls, floors papers and top of a table are flat. Flat surfaces are otherwise called as plane surfaces or planes. Cubes and cuboids have flat surfaces.



Curved Surface: Surfaces of few objects such as ball, flowerwase, pot are curved. Cone,Cylinder and sphere have curved surfaces.



Practice

Tick the appropriate columns.



| Shapes | | | | | |
|----------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Plane surface | <input type="checkbox"/> |
| Curved surface | <input type="checkbox"/> |
| Plane surface and Curved surface | <input type="checkbox"/> |

Teacher's note: Teacher can discuss about the types of lines found in objects in everyday use and enable the children to draw them in above tabular column.

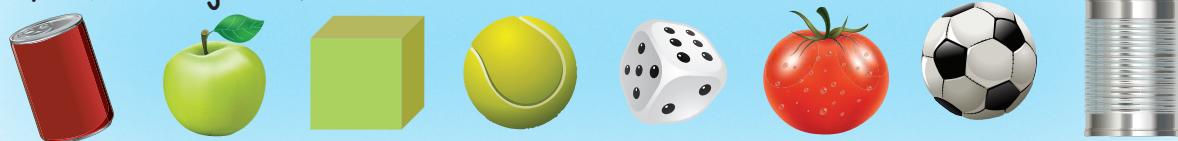




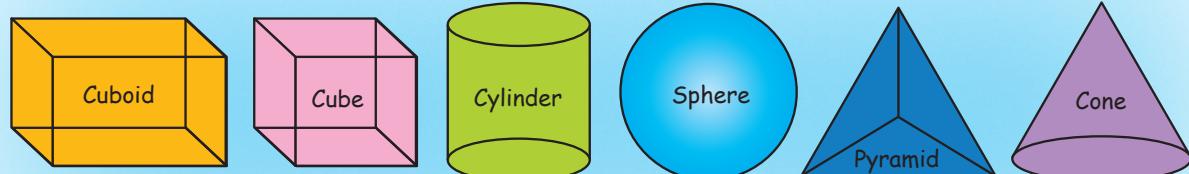
Look at the things around you.



Identify the shapes of the objects. Observe the dimensions of these objects.



3D Shapes



Solid shapes have 3 dimensions namely length, breadth, and height. These are shortly called as 3D shapes.

Let us know

A **Cube** is a solid shape made of squares. It has 6 faces, 12 edges and 8 vertices.

A **Cuboid** is a solid shape made of rectangles. It has 6 faces, 12 edges and 8 vertices.

A **Sphere** is a solid shape made of circles. It has 1 face, no edges and no vertex.

Practice

1. Match the following.

| | | |
|--|----------|--|
| | cone | |
| | cube | |
| | cylinder | |
| | sphere | |
| | cuboid | |





2. Complete the following table by filling the properties of 2D and 3D shapes.

| S. No | Figure | 2D or 3D | Name of the Shape | Number of sides | Number of edges | Number of corners | Number of diagonals |
|-------|--------|----------|-------------------|-----------------|-----------------|-------------------|---------------------|
| 1 | | 2D | Rectangle | | | | |
| 2 | | 2D | Traingle | | | | |
| 3 | | 2D | Circle | | | | |
| 4 | | 2D | Square | | | | |
| 5 | | 2D | Traingle | | | | |
| 6 | | 2D | Rectangle | | | | |
| 7 | | 3D | Cube | | | | |
| 8 | | 3D | Cuboid | | | | |
| 9 | | 3D | Sphere | | | | |

Teacher's note: Teacher shall facilitate the children to draw the front and side views of 3d shapes by providing the objects.



U69E2G



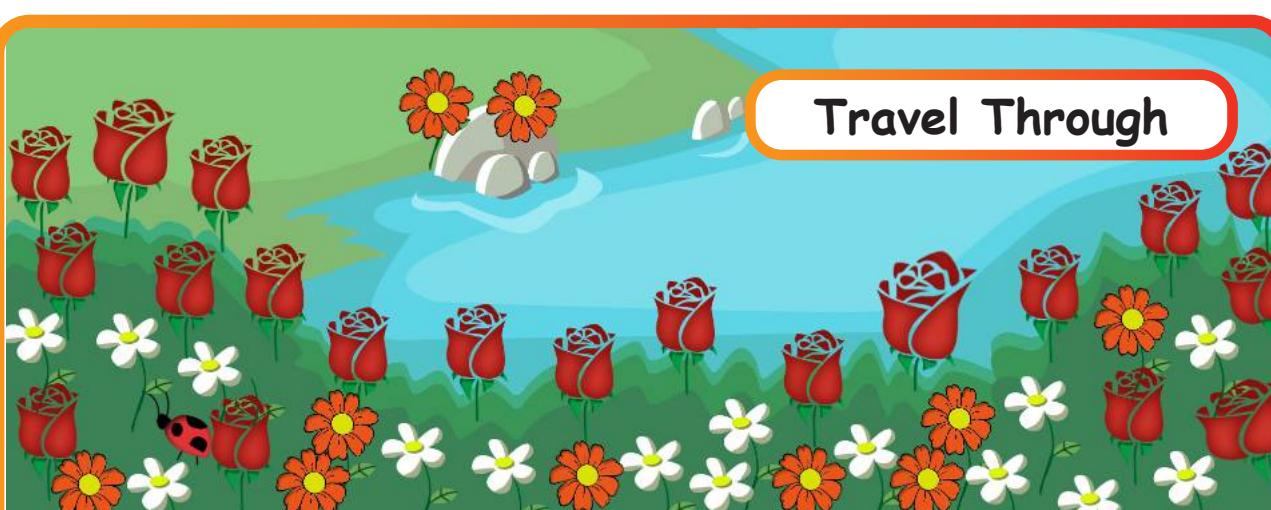
UNIT-2



NUMBERS



Travel Through



1.

Look at the above picture and answer the following.

Flowers



Number and Number name of flowers





2. Fill in the blanks in each of the figures with missing numbers.

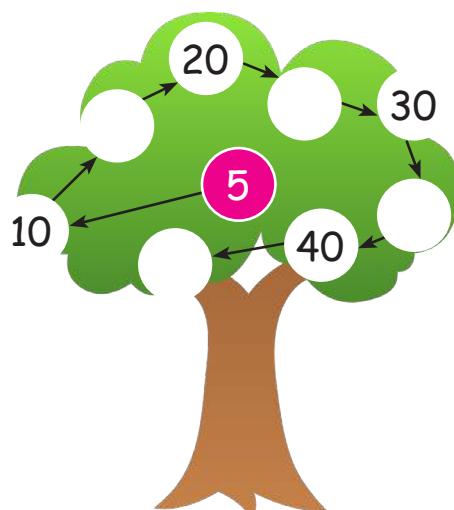
a.



b.



c.



3. Complete the given facts by placing '+' for addition and '-' for subtraction.

$9 \underline{\quad} 3 = 12$

$92 \underline{\quad} 20 = 72$

$80 \underline{\quad} 11 = 91$

$12 \underline{\quad} 3 = 9$

$56 \underline{\quad} 21 = 35$

$75 \underline{\quad} 17 = 92$

2.1 Numbers sequence upto 1000.

- Numbers 0, 1, 2, 3, 4, 5, 6, 7, 8 and 9 are one digit numbers.
- Numbers from 10 to 99 are two-digit numbers.



99 is the biggest two-digit number.

10 is the smallest two-digit number.

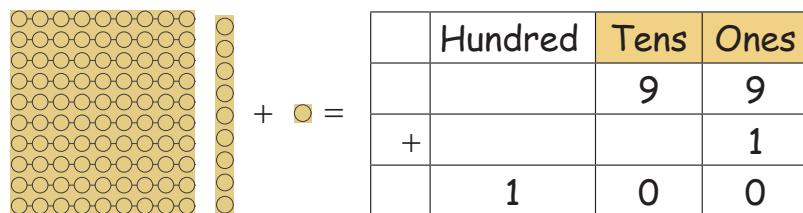




Formation of the numbers such as 10,100 and 1000.

when 1 is added with 9 ,we get 10.

| Tens | Ones |
|------|------|
| | 9 |
| | 1 |
| 1 | 0 |



When we add 1 with 99 we get 100. The numeral 100 represents the number "HUNDRED", the smallest **three digit** number. One hundred has 10 tens. One hundred has 100 ones.

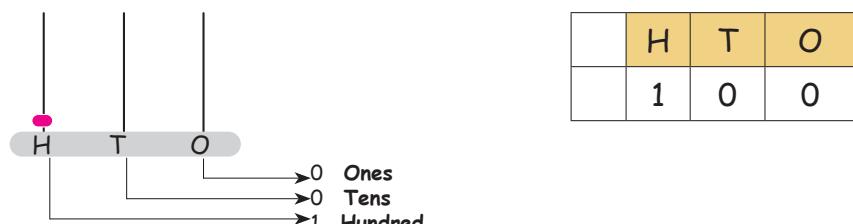
| | Th | H | T | Ones |
|---|----|---|---|------|
| | | 9 | 9 | 9 |
| + | | | | 1 |

| | Th | H | T | Ones |
|---|----|---|---|------|
| | | 9 | 9 | 9 |
| + | | | | 1 |

When we add 1 with 999 we get 1000. The numeral 1000 represents the number "Thousands", the smallest **four digit** number. One thousand has 10 hundreds. One thousand has 100 tens.

Read and write all three digit numbers and number names.

We shall represent 100 in an abacus as shown below.



No beads in the ones place shows 0 ones.

No beads in the tens place shows 0 Tens.

1 bead in the hundreds place shows 1 hundred.

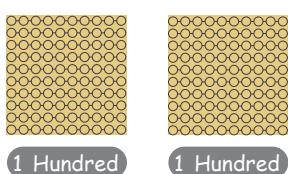
The place value higher than tens place is hundreds place.
Hundred (or) 100 is the smallest three digit number.





Examples:

Number Blocks

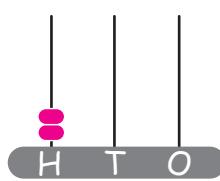


1 Hundred



1 Hundred

Abacus



H T O

Numerical form

| | | |
|---|---|---|
| H | T | O |
| 2 | 0 | 0 |

Number name



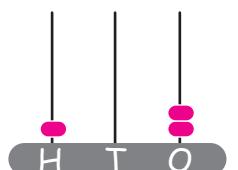
Two hundred



1 Hundred



2 Ones



H T O

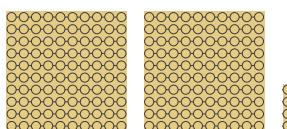
| | | |
|---|---|---|
| H | T | O |
| 1 | 0 | 2 |

One hundred two

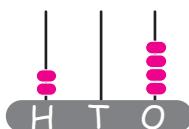


Activity 1

Number Blocks



Abacus



H T O

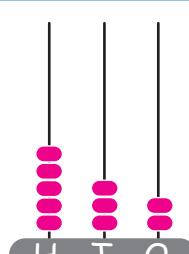
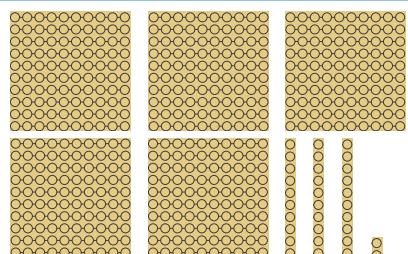
Numerical form

| | | |
|---|---|---|
| H | T | O |
| | | |

Number name

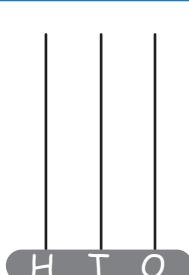
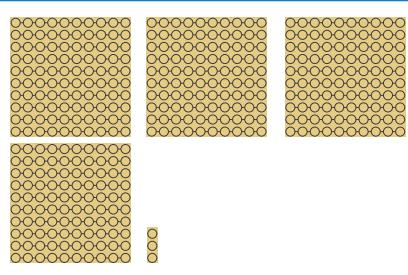
Two hundred four

| | | |
|---|---|---|
| H | T | O |
| | | |



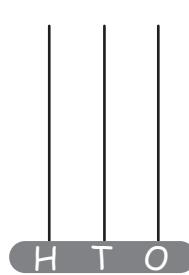
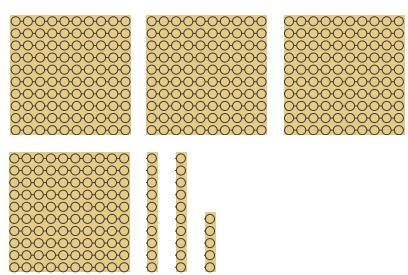
H T O

| | | |
|---|---|---|
| H | T | O |
| | | |



H T O

| | | |
|---|---|---|
| H | T | O |
| | | |



H T O

Teacher's note: Let the children explore to represent many 3 digit numbers by using math kit.



Read and write the numbers from 101 to 200.



| | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 101 | 111 | 121 | 131 | 141 | 151 | 161 | 171 | 181 | 191 |
| 102 | | | | | | 162 | | 182 | |
| | | 123 | | | | | | | 193 |
| 104 | | | | | | | 174 | | |
| | 115 | | | 145 | | | | | |
| 106 | | | | | | | | 186 | |
| | | | 137 | | | 167 | | | 197 |
| 108 | | | | | | | 178 | | |
| 110 | 120 | 130 | 140 | 150 | 160 | 170 | 180 | 190 | 200 |

The number name of the numeral 101 is written by adding one hundred with one as **one hundred one**. The numeral 199 is written as **one hundred ninety nine**.

Teacher's note: Teacher can give practice to children to write the numbers upto 1000.



Activity 2



Write the numerals for the given number names.

| Number names | Numerals |
|--------------------------|----------|
| Five hundred thirty five | 535 |
| One hundred seven | 107 |
| One hundred twenty eight | |
| Six hundred | |
| Nine hundred five | |





Activity 3



Write the number names for the following Numerals.

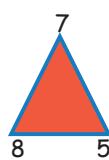
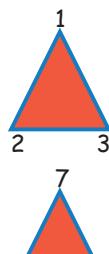
| Numerals | Number name |
|----------|--------------------|
| 150 | One hundred fifty |
| 225 | |
| 306 | |
| 535 | |
| 907 | Nine hundred seven |
| 992 | |



Activity 4



Form three digit numbers using each of the given numbers only once.



Place value of a numeral in the given number.



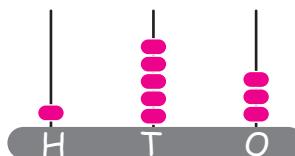
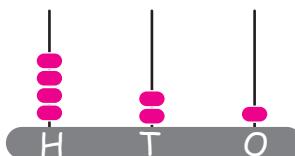
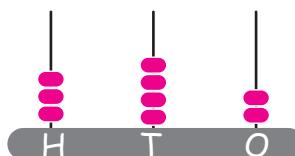
Write the place value of the underlined digit in the given numbers.

| Numeral | Place value | Number name of the underlined digit |
|--------------|-------------|-------------------------------------|
| 2 <u>9</u> 6 | Tens | Ninety |
| 29 <u>6</u> | Ones | Six |
| <u>2</u> 96 | Hundreds | Two hundred |
| 1 <u>9</u> 6 | Tens | Ninety |
| <u>4</u> 17 | | |
| 63 <u>8</u> | | |
| <u>9</u> 45 | | |





Find the numbers represented in the abacus by writing their place value.



3 - Hundreds

4 - Tens

2 - Ones

$$300 + 40 + 2$$

$$\underline{342}$$

Expand the given numbers into ones tens and hundreds

| Number | Expanded Form |
|--------|----------------|
| 246 | $200 + 40 + 6$ |
| 570 | $500 + 70 + 0$ |
| 637 | |
| 603 | |
| 989 | |

Write the simplified form of the number of the given expansions.

| Expanded form | Simplified form |
|----------------|-----------------|
| $300 + 90 + 8$ | 398 |
| $200 + 50 + 6$ | |
| $900 + 80 + 5$ | |
| $500 + 50 + 7$ | |

Skip counting starting from any given number.

Example:

1. → Skip counted in ones
2. → Skip counted in twos





Complete the following by skip counting in 5s ,10s and 100s.

1. 250 255 270
2. 500 510 540
3. 100 200 600

Odd numbers and even numbers

Even numbers 0 2 4 6 8 10 12



“

Numbers ending with 1, 3, 5, 7 and 9 are called **ODD** numbers.

Numbers ending with 0, 2, 4, 6 and 8 are called **EVEN** numbers.

”



Activity 5



Circle the even numbers

8, 69, 70, 84, 99

112, 131, 156, 170, 186

226, 300, 303, 440, 478

542, 570, 575, 600, 610

931, 948, 952, 982, 999

Circle the odd numbers

7, 26, 33, 61, 84

105, 116, 125, 142, 151

219, 232, 245, 357, 390

540, 555, 557, 603, 609

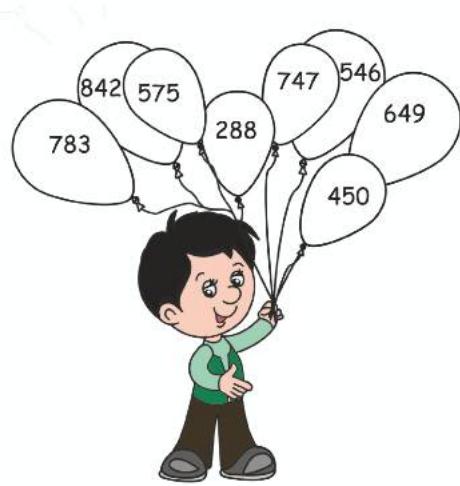
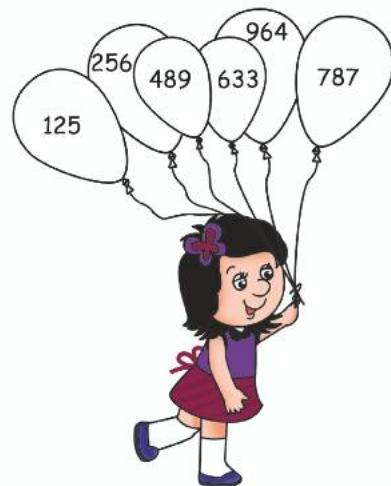
918, 919, 935, 953, 998



Activity 6



Colour the balloons with odd number by **yellow** and even number by **red**.

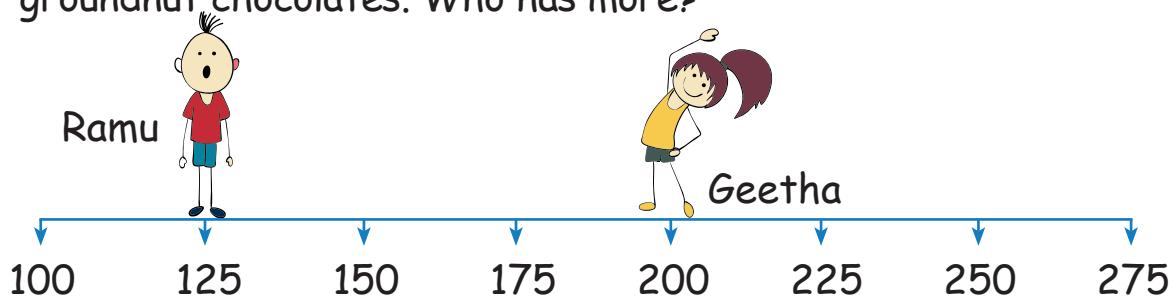


In number sequence, after every odd number there is an even number.

Similarly after every even number there is an odd number.

2.2 Comparison of numbers

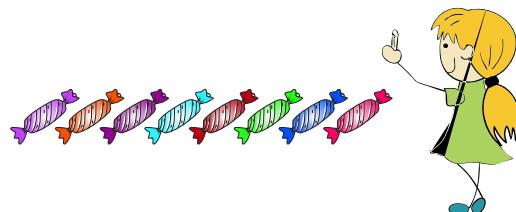
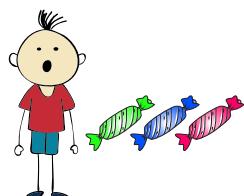
Ramu has 125 groundnut chocolates and Geetha has 200 groundnut chocolates. Who has more?





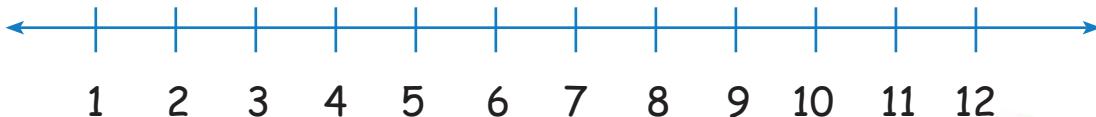
Greater and smaller numbers

Amuthan has 3 chocolates and his sister Meenakshi has 8 chocolates. Who has more chocolates?



Any number which comes before a number is **smaller number**.
Any number which comes after a number is **greater number**.

In a number line 3 comes before 8 or 8 comes after 3.



3 is smaller than 8.

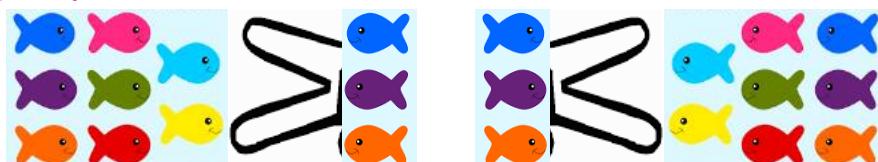
8 is greater than 3.

Meenakshi has more chocolates.



Know more
'0' does not have any value at the beginning of a number.

Using symbols



3 is smaller than 8

we write $3 < 8$

27 is smaller than 40

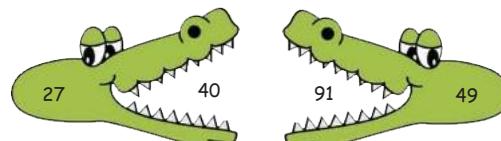
we write $27 < 40$

8 is greater than 3

we write $8 > 3$

91 is greater than 49

we write $91 > 49$





1.

Comparison of numbers with different digits.

The number which has **more digits** is the **greater number**.

The number 115 has 3 digits and 89 has only 2 digits.

So 115 is **greater than** 89. We write $115 > 89$.

Compare 115 and 89

| H | T | O |
|---|---|---|
| 1 | 1 | 5 |

| H | T | O |
|---|---|---|
| | 8 | 9 |

2.

Comparison of numbers with equal digits.

Step 1: If the number of digits are **equal**, compare the digit in the hundreds place. The number which has a greater value in the **hundreds place is greater**. 2 is greater than 1. So, 250 is **greater than** 160. We write $250 > 160$. We can also say $160 < 250$.

Compare 160 and 250

| H | T | O |
|---|---|---|
| 1 | 6 | 0 |

| H | T | O |
|---|---|---|
| 2 | 5 | 0 |

Look at the hundreds place

Step 2: If the digits in the **hundreds place are same**, compare the digits in the **tens place**. The number which has the **greater digit in the tens place is the greater number**.

The digit in the hundred place are the same. Compare the digits in the tens place. 5 is greater than 4. so, 151 is **greater than** 143. We write $151 > 143$. We can also say $143 < 151$.

| H | T | O |
|---|---|---|
| 1 | 4 | 3 |

| H | T | O |
|---|---|---|
| 1 | 5 | 1 |





Step 3: If the digits in the hundred and the tens place are same, compare the digits in the ones place. The number which has the greater digit in the ones place is the greater number. The digits in the hundreds place and tens place are the same. Comparing the digits in the ones place.

Compare 141 and 148

| H | T | O |
|---|---|---|
| 1 | 4 | 1 |

| H | T | O |
|---|---|---|
| 1 | 4 | 8 |

8 is greater than 1

So the number 148 is **greater than** 141.

We write $148 > 141$

We can also say $141 < 148$.



Comparing numbers with same value in all the digits

The digits in the hundreds place, tens place and ones place are same.

So, $536 = 536$

| H | T | O |
|---|---|---|
| 5 | 3 | 6 |

| H | T | O |
|---|---|---|
| 5 | 3 | 6 |

The greatest three digit number is 999.
The smallest three digit number is 100.

Try this

Put $<$, $>$, and $=$ in the boxes provided.

103 438

710 710

250 069

614 618

408 308

719 917





2.3 Ordering

Ascending and Descending order.

111, 112, 113, 114, 115

When we write the numbers from smaller to greater, we call it "Ascending order".

When we write numbers from greater to smaller, we call it "Descending order".

Example:

Let us arrange the numbers 235, 230, 238 in ascending order and in descending order.

Ascending order

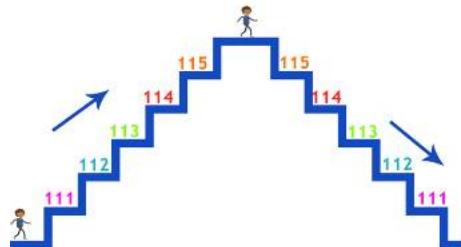
$$230 < 235 < 238$$

230, 235, 238

Descending order

$$238 > 235 > 230$$

238, 235, 230



Try this

Write the even numbers between 245 and 255 in descending order.



Try this



Arrange the following numbers in ascending order.

a. 55, 63, 40, 8

c. 50, 405, 109, 600

b. 217, 201, 215, 219

d. 785, 757, 718, 781

Arrange the following numbers in descending order.

a. 212, 503, 369, 60

c. 323, 303, 332, 33

b. 051, 100, 810, 167

d. 205, 210, 290, 300



Forming 3 digit numbers using given digits

Consider the numbers 2 and 7.

We shall form the greatest and smallest two digit numbers using these numbers.

The two-digit numbers formed using 2 and 7 are 27, 72, 22, 77.
(77 is the greatest and 22 is the smallest 2 digit numbers)

Similarly, 7, 4 and 8 are given numbers.

We shall form the greatest and smallest three digit number using these numbers (without repetition).

478, 487, 748, 784, 847, 874

Arrange the given digits from the smallest number to greatest number, we get **ascending order**.

478, 487, 748, 784, 847, 874

Arrange the above from the greatest number to smallest number, we get **descending order**.

874, 847, 784, 748, 487, 478

874 is the greatest number and 478 is the smallest number.



Practice



1. Form greatest and smallest numbers using the given digits (without repetition of digits)

| Digits | Greatest number | Smallest number |
|---------|-----------------|-----------------|
| 5, 0, 9 | | |
| 6, 3, 7 | | |
| 4, 0, 1 | | |
| 9, 9, 0 | | |



2. Complete the following number sequence.

111, 222, 333, 444,,,

150, 155, 160, 165,,,

210, 310, 410, 510,,,

333, 433, 533, 633,,,



3. Write the numerals from the expanded form.

- a. 4 Hundreds; 5 Tens; 0 Ones
- b. 3 Hundreds; 0 Tens; 1 One
- c. 5 Hundreds; 8 Tens; 9 Ones
- d. 8 Hundreds; 0 Tens; 5 Ones



4. Write the number names.

| Numeral | Number name |
|---------|-------------|
| 156 | |
| 340 | |
| 408 | |
| 696 | |



5. Fill in the blanks.

- a. 405 has ____ Hundred ____ Tens ____ ones
- b. 547 has ____ Hundred ____ Tens ____ ones
- c. 680 has ____ Hundred ____ Tens ____ ones

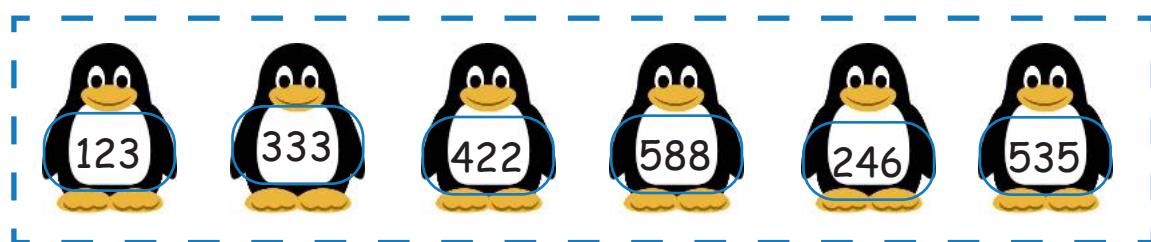


6. Write the place value for the bubbled digits.

- a. 1 9 8 _____
- b. 9 0 8 _____
- c. 5 4 3 _____



6. Write down the odd and even numbers separately.



- a. Odd numbers: _____
- b. Even numbers: _____





8.

write $<$, $>$, $=$ in the box.105 150419 547394 387761 683660 660983 990

9.

Write the numbers in ascending and descending order.

326 323 301 356 365 399 308 340Ascending order: Descending order:

10.

Using the digits 6, 8 and 5 only once write the greatest and smallest 3 digit number.

Greatest number: Smallest number:

2.4

Addition and Subtraction.

Addition

Recall

a. + =

b. + =

c. + =

d. $55 + 18 =$

e. $\begin{array}{r} 56 \\ + 33 \\ \hline \end{array}$

f. $\begin{array}{r} 57 \\ + 33 \\ \hline \end{array}$

g. $\begin{array}{r} 70 \\ + 35 \\ \hline \end{array}$





Addition of Three Digit Numbers (Without Regrouping)

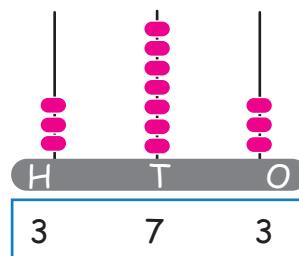
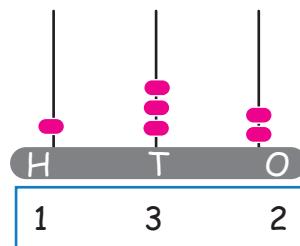
Example:

Add 132 and 241

So using abacus,
first put 132 as:

then add 241, as
2 more in hundred,
4 more in tens and
1 more in ones.

| | H | T | O |
|---|---|---|---|
| | 1 | 3 | 2 |
| + | 2 | 4 | 1 |
| | | | |



Answer of addition of two or three numbers is called **sum of the numbers**.

$$\text{sum} = 373$$

Example: Add $342 + 515 + 12$

step 1: add ones

| | H | T | O |
|---|---|---|---|
| + | 3 | 4 | 2 |
| | 5 | 1 | 5 |
| | 1 | 2 | |
| | | | |

| | H | T | O |
|---|---|---|---|
| + | 3 | 4 | 2 |
| | 5 | 1 | 5 |
| | 1 | 2 | |
| | | | 9 |

step 2: add tens

| | H | T | O |
|---|---|---|---|
| + | 3 | 4 | 2 |
| | 5 | 1 | 5 |
| | 1 | 2 | |
| | | | 6 |
| | | | 9 |

step 3: add hundreds

| | H | T | O |
|---|---|---|---|
| + | 3 | 4 | 2 |
| | 5 | 1 | 5 |
| | 1 | 2 | |
| | 8 | 6 | 9 |

$$\text{Sum} = 869$$



Try this

Add the following numbers

1.

| | H | T | O |
|---|---|---|---|
| | 4 | 4 | 1 |
| + | 3 | 2 | 6 |
| | | | 2 |
| | | | |

2.

| | H | T | O |
|---|---|---|---|
| | 5 | 6 | 2 |
| + | 2 | 0 | 4 |
| | | | |
| | | | |

3.

| | H | T | O |
|---|---|---|---|
| | 8 | 1 | 5 |
| + | 1 | 5 | 3 |
| | | | 2 |
| | | | 1 |

4. $34 + 452 + 3$





Addition of Three Digit Numbers (With Regrouping)

Example: Add 556 and 194

Add ones

| | H | T | O |
|---|---|---|---|
| | | 1 | |
| + | 5 | 5 | 6 |
| | 1 | 9 | 4 |
| | | | 0 |

$$6 + 4 = 10 \text{ Ones} = 1 \text{ Ten}$$

With regrouping.

$$10 \text{ ones} = 1 \text{ Ten} + 0 \text{ ones}$$

So, we put 0 in ones place and carry over 1 to ten place.

Add Tens

| | H | T | O |
|---|---|---|---|
| | | 1 | |
| + | 5 | 5 | 6 |
| | 1 | 9 | 4 |
| | | 5 | 0 |

$$1 + 5 + 9 = 15 \text{ tens}$$

$$15 \text{ tens} = 1 \text{ hundred} + 5 \text{ tens}$$

So, we put 5 in tens place. And carry over 1 to hundred place.

Add hundreds

| | H | T | O |
|---|---|---|---|
| | 1 | 1 | |
| + | 5 | 5 | 6 |
| | 1 | 9 | 4 |
| | 7 | 5 | 0 |

$$1 + 5 + 1 = 7 \text{ hundred}$$

So, we put 7 in hundreds place.

Sum = 750



Try this



Add the following numbers.

a.
$$\begin{array}{r} 709 \\ + 261 \\ \hline \end{array}$$

b.
$$\begin{array}{r} 339 \\ + 202 \\ \hline 28 \end{array}$$

c.
$$\begin{array}{r} 508 \\ + 562 \\ \hline 440 \end{array}$$

d. $921+20+61$

e. $28+195+6$





SUBTRACTION



Recall:

a. - =

b. - =

c. - =

d. $99 - 55 =$

e. 63

- 17

f. 70

- 9



Subtracting

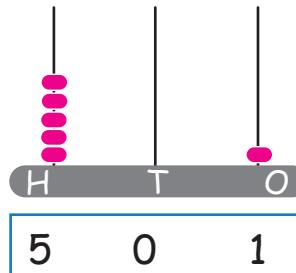
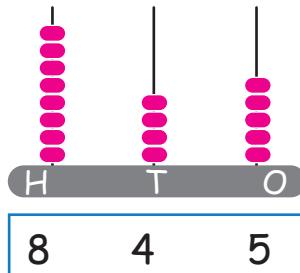
Subtraction of Three Digit Numbers (Without Regrouping)

Example:

Subtract 344 from 845

Remove 3 from hundreds,
4 from tens and
4 from ones as

| | H | T | O |
|---|---|---|---|
| | 8 | 4 | 5 |
| - | 3 | 4 | 4 |
| | | | |



Answer of subtraction of two numbers is called **difference of the two numbers**.

Difference = 501





Example: Subtract 213 from 735

Subtract ones

| | H | T | O |
|---|---|---|---|
| | 7 | 3 | 5 |
| - | 2 | 1 | 3 |
| | | | 2 |

Subtract tens

| | H | T | O |
|---|---|---|---|
| | 7 | 3 | 5 |
| - | 2 | 1 | 3 |
| | | | 2 |

Subtract hundreds

| | H | T | O |
|---|---|---|---|
| | 7 | 3 | 5 |
| - | 2 | 1 | 3 |
| | | | 2 |

Subtract hundreds

| | H | T | O |
|---|---|---|---|
| | 7 | 3 | 5 |
| - | 2 | 1 | 3 |
| | | | 2 |

Difference = 522



Try this



Subtract the following numbers.

a.

| | H | T | O |
|---|---|---|---|
| | 5 | 4 | 4 |
| - | | 2 | 3 |
| | | | |

b.

| | H | T | O |
|---|---|---|---|
| | 7 | 6 | 5 |
| - | 4 | 0 | 1 |
| | | | |

c.

| | H | T | O |
|---|---|---|---|
| | 8 | 4 | 5 |
| - | 2 | 3 | 4 |
| | | | |

Subtraction of Three Digit Numbers (With Regrouping)

Example: Subtract 138 from 264

| | H | T | O |
|---|---|---|---|
| | 2 | 6 | 4 |
| - | 1 | 3 | 8 |
| | | | |

Step:1

Subtract ones

| | H | T | O |
|---|---|---|----|
| | | 5 | 14 |
| - | 2 | 6 | 4 |
| | 1 | 3 | 8 |

Step:2

Subtract tens

| | H | T | O |
|---|---|---|----|
| | | 5 | 14 |
| - | 2 | 6 | 4 |
| | 1 | 3 | 8 |

Step:3

Subtract hundreds

| | H | T | O |
|---|---|---|----|
| | 1 | 5 | 14 |
| - | 2 | 6 | 4 |
| | 1 | 3 | 8 |

$$14 - 8 = 6$$

$$5 - 3 = 2$$

$$2 - 1 = 1$$

We cannot subtract 8 from 14. so regroup
1 ten from 6 tens into 10 ones.





Try this



Subtract the following numbers.

a.
$$\begin{array}{r} 5 \ 4 \ 0 \\ - 3 \ 5 \ 3 \\ \hline \end{array}$$

b.
$$\begin{array}{r} 7 \ 6 \ 5 \\ - 4 \ 3 \ 8 \\ \hline \end{array}$$

c.
$$\begin{array}{r} 8 \ 0 \ 5 \\ - 2 \ 4 \ 6 \\ \hline \end{array}$$

Addition and subtraction by using standard algorithm

Example: Add 675 and 136



Step:1

Add ones:

| | H | T | O |
|---|---|---|---|
| | | | 1 |
| | 6 | 7 | 5 |
| + | 1 | 3 | 6 |
| | | | 1 |

Step:2

Add tens

| | H | T | O |
|---|---|---|---|
| | | | 1 |
| | 6 | 7 | 5 |
| + | 1 | 3 | 6 |
| | | 1 | 1 |

$5 + 6 = 11$ ones,

11 ones = 1 tens + 1 one put 1 in ones place and carry over 1 to tens place.

$1 + 7 + 3 = 11$ tens

11 tens = 1 hundred + 1 tens. put 1 in tens place and carry over 1 to hundreds place.

Step:3

Add hundreds

| | H | T | O |
|---|---|---|---|
| | 1 | 1 | |
| | 6 | 7 | 5 |
| + | 1 | 3 | 6 |
| | 8 | 1 | 1 |

Puzzle

I am a 3 digit number. If you add 5 tens with me, I will become greatest 3 digit number Find me.



$1 + 6 + 1 = 8$ hundreds
put 8 in hundreds place

Teacher's note: Teacher can help the children to do the Addition problems by using abacus kit.



Example:

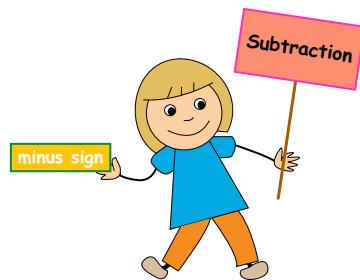
Subtract 386 from 724



Step:1

Subtract ones

| | H | T | O |
|---|---|--------------|--------------|
| | | | 1 14 |
| | 7 | 2 | 4 |
| + | 3 | 8 | 6 |
| | | | 8 |



Borrow 1 ten from 2 tens then add to 4 ones we get 14 in one's place.

$$14 - 6 = 8$$

Step:2

Subtract tens

| | H | T | O |
|---|--------------|--------------|---------------|
| | | | 11 |
| | 6 | 1 | 14 |
| + | 7 | 2 | 4 |
| | 3 | 8 | 6 |
| | | 3 | 8 |

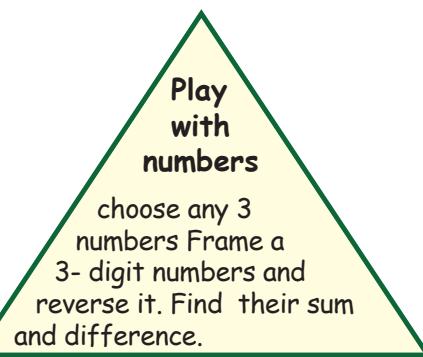
Borrow 1 hundred from 7 hundreds then add to 1 ten we get 11 in ten's place.

$$11 - 8 = 3$$

Step:3

Subtract hundreds

| | H | T | O |
|---|--------------|--------------|---------------|
| | | | 11 |
| | 6 | 1 | 14 |
| + | 7 | 2 | 4 |
| | 3 | 8 | 6 |
| | 3 | 3 | 8 |



$$6 - 3 = 3$$

$$\text{Difference} = 338$$

Teacher's note: Teacher can help the children to do the Subtraction problems by using abacus kit.





Daily life situation involving addition and subtraction.

- i. 452 Mangoes are grown in farm A and 349 in farm B. Find the total number of mangoes grown in both farms.

$$\begin{array}{lcl} \text{Mangoes in farm A} & = & 452 \\ \text{Mangoes in farm B} & = & 349 \\ \text{Total number of mangoes} & = & \underline{\underline{801}} \end{array}$$

- ii. Amuthan saved rupees 125 on the first day and rupees 200 in the second day. Find the total amount saved by him in two days

$$\begin{array}{lcl} \text{The first day saving} & = & \boxed{} \\ \text{The second day saving} & = & \boxed{} \\ \text{Total saving} & = & \boxed{} \end{array}$$

- iii. Kumar earned rupees 800 in a day and spent rupees 450. Find the amount saved by him.

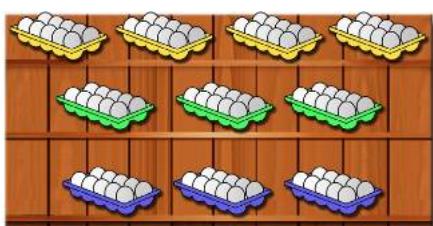
$$\begin{array}{lcl} \text{His one day income} & = & \boxed{} \\ \text{Amount spent} & = & \boxed{} \\ \text{Savings amount} & = & \boxed{} \end{array}$$



Try this



There were 10 egg trays each with 10 eggs in Valavan's egg shop. He sold eggs in 3 trays and found that eggs in 2 trays were rotten. find the number of eggs remaining in Valavan's shop.



Total number of eggs in Valavan's shop = _____.

Number of eggs sold + number of eggs rotten = _____ + _____ = _____.

Number of eggs remaining in the shop = _____.





Frame questions for addition and subtraction for the picture below. One is done for you.



1. Rani chose 2 tops from the hanger and 3 tops from the rack. Find the total number of shirts chosen by her?

2.

Frame the questions related to the given addition and subtraction facts.

$$281 + 240 = ?$$

A dairy booth sells 281 bottles of milk on first day and 240 bottles of milk on second day. Find the total number of bottles sold on both the days.

$$352 - 148 = ?$$

There are 352 oranges on a tree 148 oranges were plucked from the tree. How many oranges are remaining in the tree?



Practice

Frame questions for the given addition and subtraction facts.

i. $118 + 212 = ?$

ii. $717 - 515 = ?$

iii. $200 + 300 = ?$

iv. $243 - 169 = ?$

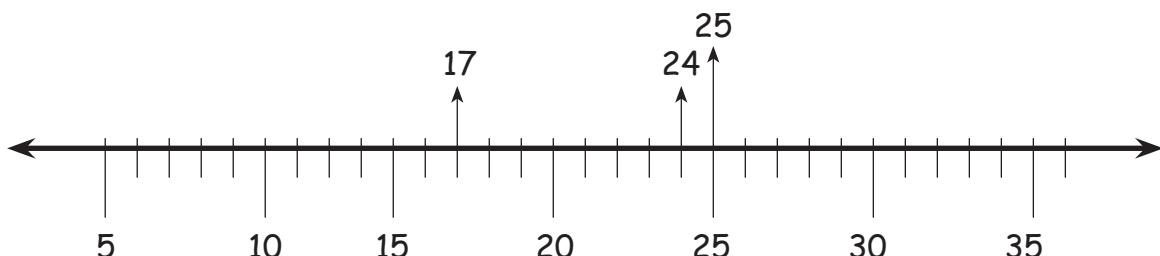


2.5

Estimation

Estimate the sum and difference of the two given numbers by rounding off to nearest 10s and 100s.

Let us round off three numbers 17, 24 and 25 to the nearest 10s.



- We can see that 17 is between 10 and 20 but it is closer to 20 than 10. So, 17 is rounded off to 20.
- 24 is between 20 and 30 but is closer to 20 than 30. So, 24 is rounded off to 20.
- 25 is between 20 and 30. But it is exactly on the middle point. So, 25 is rounded off to 30.

We can easily estimate the sum and difference of any 2 number by rounding off them to nearest values and adding or subtracting them.

Example:



1. Estimate the sum by rounding off to the nearest value and find the actual sum.

| Problems | Estimated Answer | Actual Answer |
|----------|------------------|---------------|
| 24 | 20 | 24 |
| + 27 | + 30 | + 27 |
| sum | 50 | 51 |



2. Estimate the difference by rounding off to the nearest value and find the actual difference.

| Problems | Estimated Answer | Actual Answer |
|------------|------------------|---------------|
| 15 | 20 | 15 |
| - 13 | - 10 | - 13 |
| Difference | 10 | 2 |





Practice



1. Find the sum and difference of the following.

a.
$$\begin{array}{r} 803 \\ + 237 \\ \hline \end{array}$$

b.
$$\begin{array}{r} 654 \\ + 209 \\ \hline \end{array}$$

c.
$$\begin{array}{r} 493 \\ + 135 \\ \hline \end{array}$$

d.
$$\begin{array}{r} 981 \\ - 165 \\ \hline \end{array}$$

e.
$$\begin{array}{r} 518 \\ - 139 \\ \hline \end{array}$$

f.
$$\begin{array}{r} 782 \\ - 375 \\ \hline \end{array}$$



2. Round off to the nearest 10.

a. 19 _____ b. 25 _____ c. 21 _____ d. 47 _____



3. Estimate the sum to the nearest ten and also find the actual sum.

| Problems | Estimated Answer | Actual Answer |
|----------|------------------|---------------|
| 33 | 30 | |
| + 35 | + 40 | |
| sum | | |

| Problems | Estimated Answer | Actual Answer |
|----------|------------------|---------------|
| 26 | | |
| + 31 | | |
| sum | | |



4. Estimate the difference to the nearest ten and also find the actual difference.

| Problems | Estimated Answer | Actual Answer |
|------------|------------------|---------------|
| 50 | | |
| - 41 | | |
| Difference | | |

| Problems | Estimated Answer | Actual Answer |
|------------|------------------|---------------|
| 28 | | |
| - 22 | | |
| Difference | | |

Teacher's note: The teacher should be prepared to give a variety of questions, puzzles, and activities according to the skills of the students.



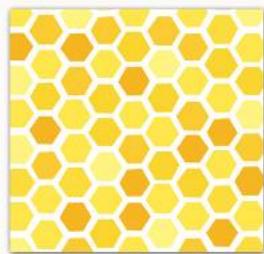


UNIT - 3



PATTERNS

Observe the pictures given below.



Patterns

Patterns are formed when objects, events and numbers are repeated uniformly in a specific way.

3.1 Patterns in shapes

Creating patterns of regular and irregular shapes by stamping.

Example: block patterns created using handprints and foot prints are shown below.





Activity 1

Create patterns by impressing the following on a paper.

- (i) Using dry leaves / fallen leaves.
- (ii) Fingers, hands, toes, feet.
- (iii) Using bangles.



Activity 2

Create patterns on your own by impressing the following on a chart paper and decorate your class room.

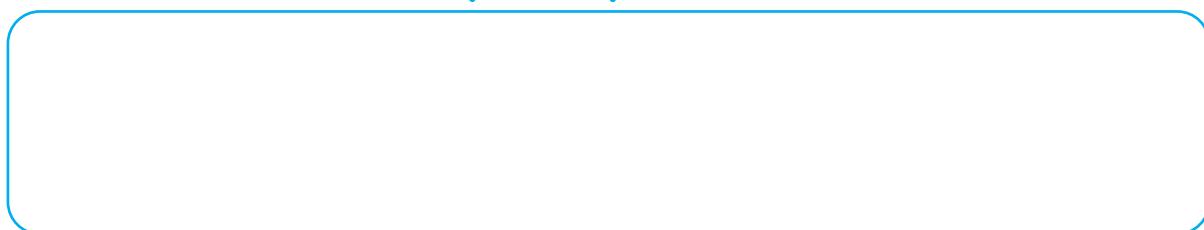
i. seeds

ii. buttons

iii. bottle lids



My own patterns



Pattern in geometrical shapes

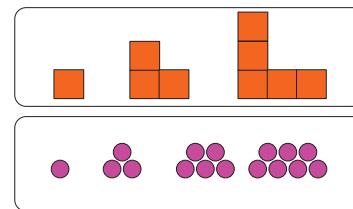
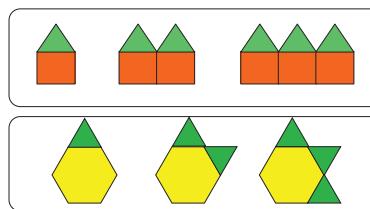
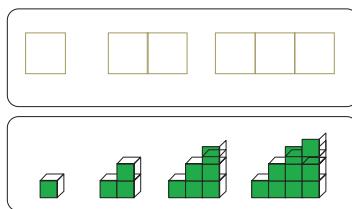
There are two types of patterns. They are

Growing patterns. Repeated patterns.

Growing Patterns

If some patterns and designs increase or grow with straight lines and geometrical forms, they are called growing patterns.

Example:



Try this

Create some growing patterns using circle and square.



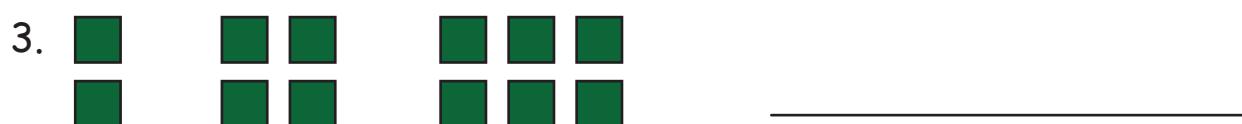
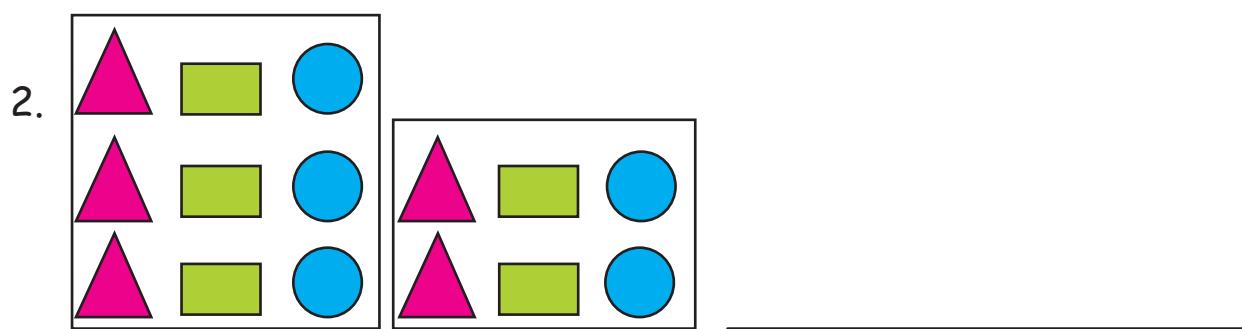
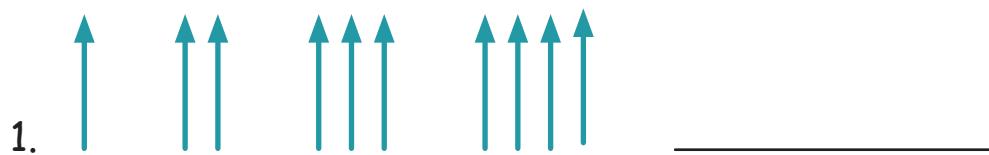
Practice



a. Continue the growing patterns.



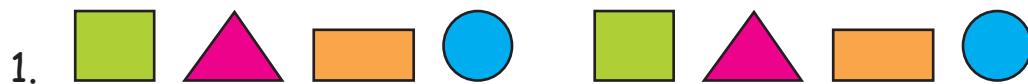
b. Continue the growing pattern.

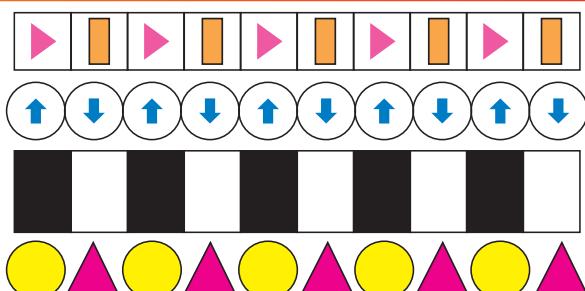
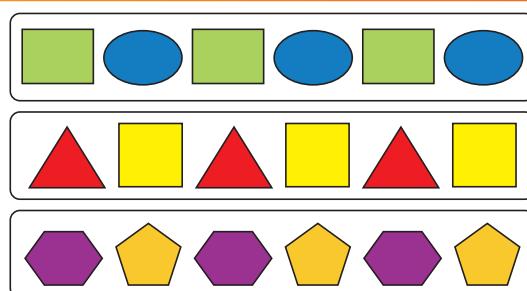


Repeated Patterns

If some patterns and designs repeat with straight lines and geometrical shapes, they are called repeated patterns.

Example:





Practice

Continue the repeating patterns upto 3 steps in the space provided.

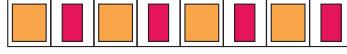














Activity 3

Complete the buntings by following the pattern.



- 1.
- 2.
- 3.

- 4.
- 5.

Do yourself

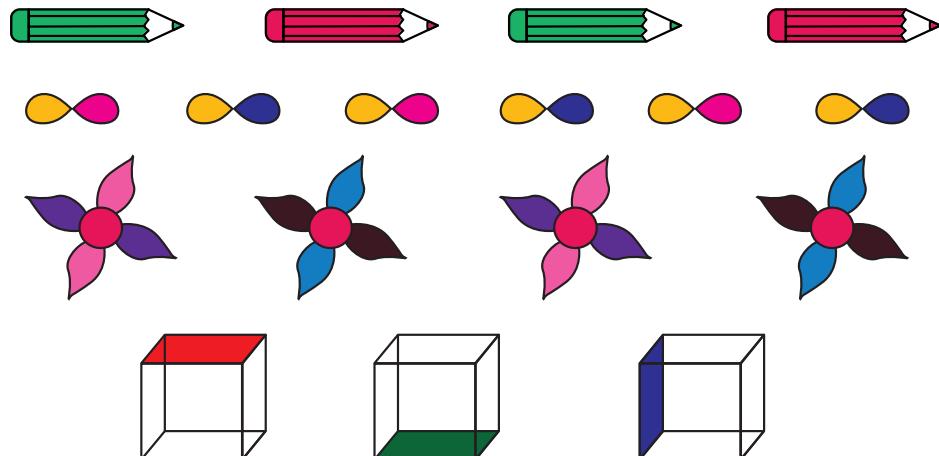
Draw some repeated patterns of your own.



1.



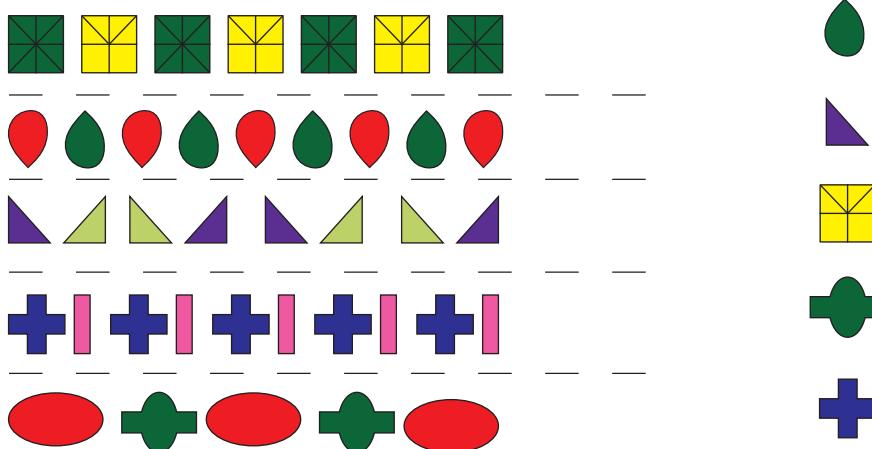
Patterns are created by combining colours and shapes in different ways.



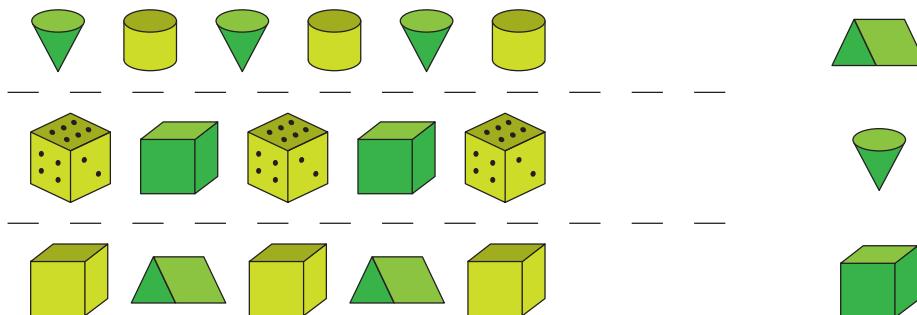
Activity 4



- Match the following and complete the pattern.



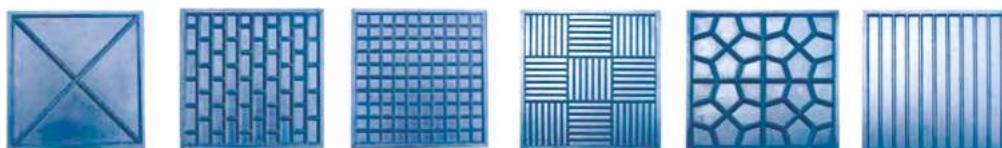
- Match the following.



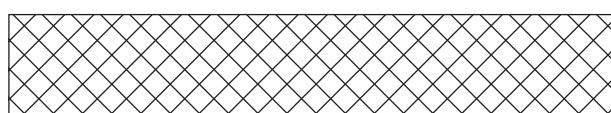
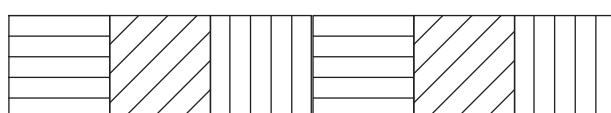


Creating pattern from straight lines

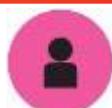
Example: Observe and extend the line patterns in the given boxes.



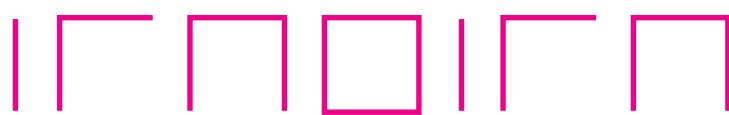
The following images shows some examples of patterns in straight lines.



Practice



Continue the Straight-line patterns.





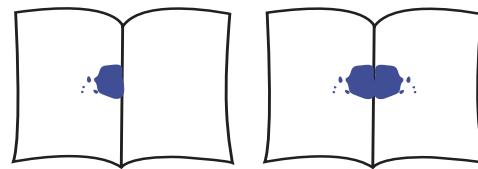
3.2 Symmetry

Symmetries in shapes and patterns.



Do your self

1. Take a piece of paper.
2. Spill few drops of ink on the paper.
3. Now fold the paper and press it.
4. You will get a symmetric figure.



Definition

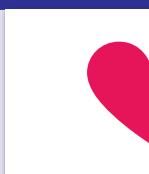
Symmetry means that one shape becomes exactly like another when you move it in the same way: turn, flip or slide.

Let us do

1. Take a sheet of paper and fold it.



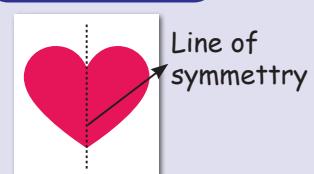
2. Draw any shape at the folded edge of the sheet.



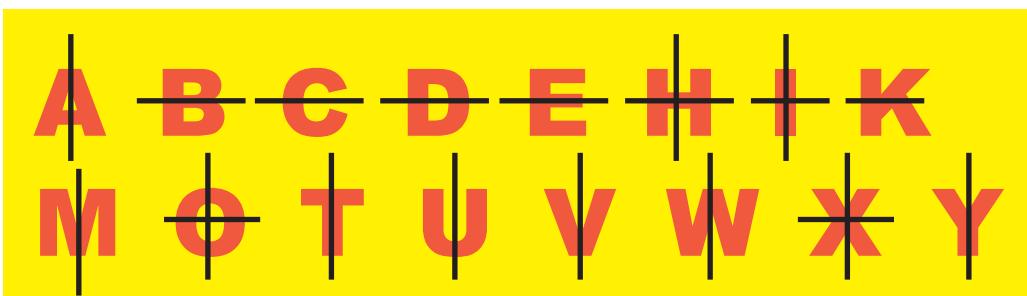
3. Cut the shape



4. Unfold it



Example:





line of symmetry

Note that one half of the shape is exactly like the other half. The line which divides the figure into two exact halves is called **the line of symmetry**.

The following letters are non symmetric and does not have line of symmetry.

F G J L N P Q R S Z



Try this



Make the paper cut outs of the shapes shown below with the help of your elders and keep them in front of a mirror and observe the image formed in the mirror. You could see the other half of the image.



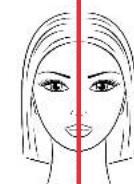
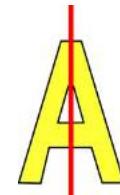
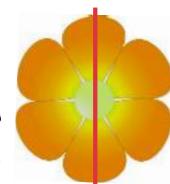
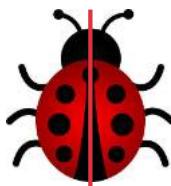
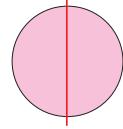
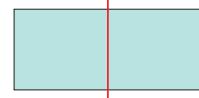
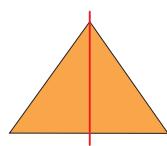
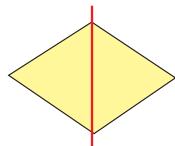
Symmetrical shapes



Definition

If a shape can be folded or divided into half so that the two halves match exactly then such a shape is called a symmetric shapes.

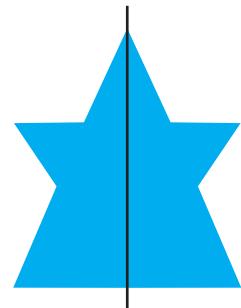
Example: 1





Example: 2

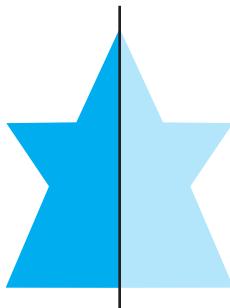
Line of Symmetry



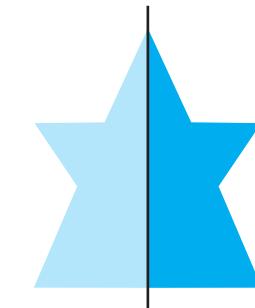
Folding Line



Mirror Line



Mirror Line



Project:

Collect some symmetrical images from newspapers and magazines and Paste them to make an album.

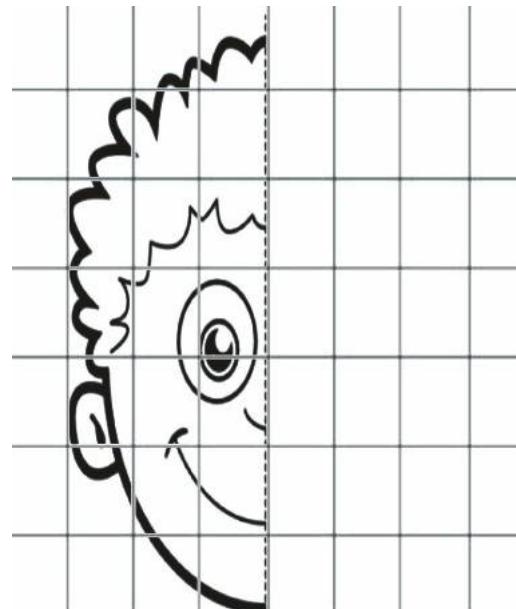
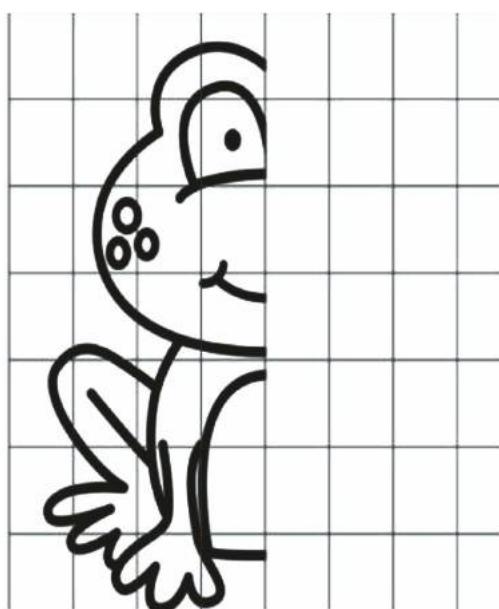
Teacher's note: Teacher can guide the children to collect the symmetrical images in day-to-day life.



Activity 5



Complete the symmetrical image



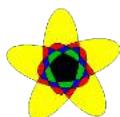


Activity 6

a. Draw the lines of symmetry for the following figures.



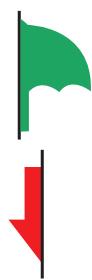
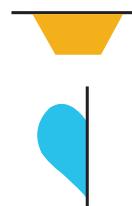
b. Circle the non-symmetrical shapes.



Activity 7



Draw the other half from the line of symmetry to make it symmetrical.



Activity 8



Line symmetry is also found in some letters of the alphabet. Complete Write the letters with line symmetry.

A - K V Y



43Q1KD





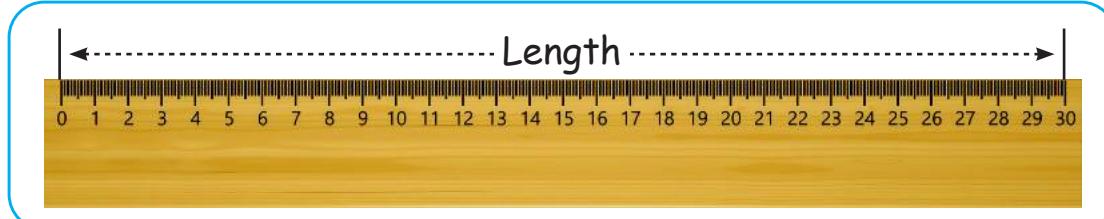
UNIT-4



MEASUREMENTS



LENGTH



Recall

We measure the length of the objects using non-standard units such as



Finger width

A pace



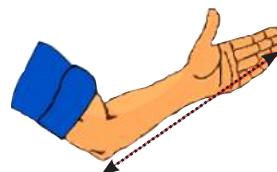
A hand span



A foot span



A cubit





4.1 Need for standard Measurement.



Activity 1

Tabulate the length of your class table measured by five of your friends with non-standard units.

| Sl. No | Students name | Finger width | Hand span | Cubit |
|--------|---------------|--------------|-----------|-------|
| 1 | friend 1 | 25 | 15 | 7 |
| 2 | friend 2 | | | |
| 3 | friend 3 | | | |
| 4 | friend 4 | | | |
| 5 | friend 5 | | | |

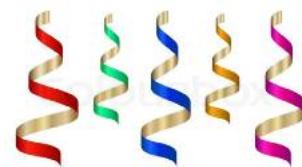


Activity 2

Measure the length of ribbon by your hand span.



friend 1 - _____ hand span
friend 2 - _____ hand span
friend 3 - _____ hand span
friend 4 - _____ hand span



Measurements measured using non standard units change from person to person.



Activity 3

Students are divided into two groups. One group should measure the length of the class room in non standard units and the other group in standard units.

Measure length of objects using simple tools.



Activity 4

Group of five students measure the length of the black board by given objects.

Pencil, Eraser, Measurement Scale & Notebook.

| Sl. No | Students name | Length of the black board | | | |
|--------|---------------|---------------------------|---------|--------|-----------|
| | | Pencils | Erasers | Scales | Notebooks |
| 1 | Kala | 10 | 35 | 7 | 14 |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |

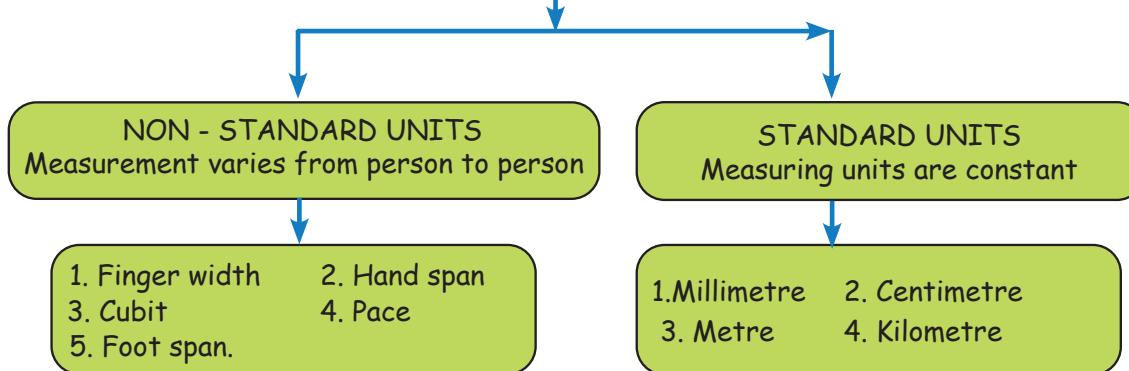




Children used their finger width, hand span and cubit to measure the table. But they got different answers why? Did you note that all the measurements made by Kala and her friends are same?



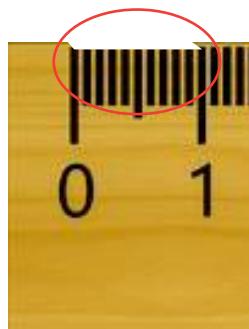
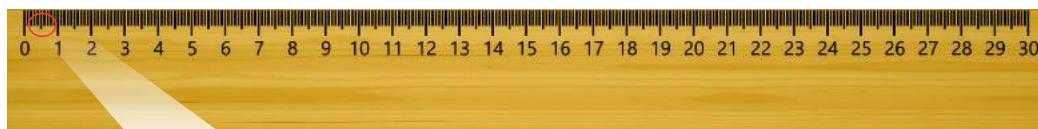
MEASUREMENT OF LENGTH



4.2 Millimetre and Centimetre.

Introduction

This is a centimetre scale/ruler. 1 denotes 1 **centimetre**, 2 denotes 2 centimetre and so on. The length between 0 and 1 has 10 parts denoted by small lines. Measurement of each part by small lines is **millimetre**.



From the picture,
1 centimetre equal to
10 parts.
So 10 millimetre = 1
centimetre.



Short form

| | |
|------------|------|
| Millimetre | - mm |
| Centimetre | - cm |
| Metre | - m |
| Kilometre | - km |

Can you tell me how many millimetres are there between 0 and 1?
Now, can you tell me how many millimetres are there between 1 and 2?
1 and 3?
Now, can you tell me how many millimetres are there in 1 centimetre?

Teacher's note: Teacher can help the children to find length of the objects by using non standard units.

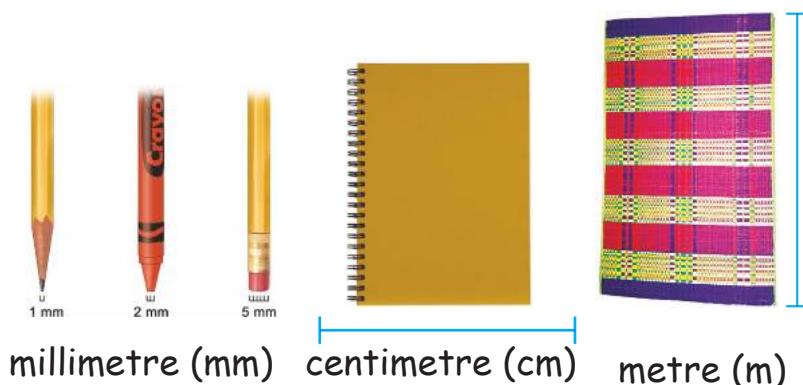


Let us know

100 centimetre = 1 metre
1000 metre = 1 Kilometre

Millimetre is the smaller unit of length.
Kilometre is the bigger unit of length.

Example:



Activity 5



Measure the length of ribbon by tape roll.

Raj cm Anu cm Ram cm Kavi cm

Measurements measured using standard units do not change from person to person.



Practice



Measure the length of following things by centimetre scale and write it in the table below.



cm



cm



cm



cm



YEQAAR



cm

Teacher's note: Teacher can guide the children to measure the things properly.





4.3 Measurement of length using ruler.

| | | | | |
|----------------------|-------|-------------------------|-------------------------|-------------------------|
| Objects | | | | |
| Length in centimetre | 30 cm | <input type="text"/> cm | <input type="text"/> cm | <input type="text"/> cm |

4.4 Centimetre and metre.



Try this



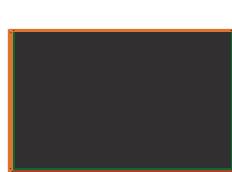
- a. Write metre or centimetre in the blank space.
- i. My pencil is 6 _____ long. ii. My hairpin is _____ long.
- iii. This tree is 3 _____ high. iv. Height of coconut tree is 15_____.
- b. Meena has a ribbon of 50 cm and Reena has a ribbon of 110 cm.
Whose ribbon is the longer?



Activity 6



Measure the length of following things in your class room using metre tape and fill in the boxes.



metre

metre

metre

metre

Understand the order of magnitude between centimetre, metre and kilometre as units.



Try This



Put '<' and '>' in the boxes.

- a. Centimetre Metre
- b. Metre Kilometre
- c. Kilometre Centimetre



Practice

Match the following.

| | | |
|-----------|------------|----------|
| | | 2 km |
| Kilometre | Centimetre | Metre |

4.5 Comparison of estimation with actual measurement



Activity 7

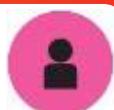
Estimate the length of the following objects and verify with actual length.



| Sl. No | Name of the object | Estimated length | Actual length |
|--------|--------------------|------------------|---------------|
| 1 | | | |
| 2 | | | |
| 4 | | | |
| 6 | | | |
| 7. | | | |
| 8. | | | |



Practice



1. Circle the odd one.

1. mm 2. cm 3. m 4. Cubit

2. Fill in the blanks.

1 metre = 100 cms 2 metre = _____ cms

3 metre = _____ cms 4 metre = _____ cms

3. Match the following.

| | |
|-----------------|--------------|
| 10 milimetres | 1 kilometre |
| 100 centimetres | 1 centimetre |
| 1000 metres | 1 metre |

4. Write non standard Units.

1. Finger span

2. _____

3. _____

4. _____

5. _____

5. Write standard Unit.

1. millimetre

2. _____

3. _____

4. _____

6. Write in short form.

millimetre : _____

centimetre : _____

metre : _____

kilometre : _____



7. Write the given units in order.

mm

metre

cm

km

Ascending order _____, _____, _____, _____

Descending order _____, _____, _____, _____





UNIT-5



TIME

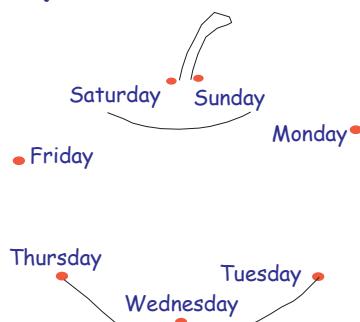


5.1 Calender

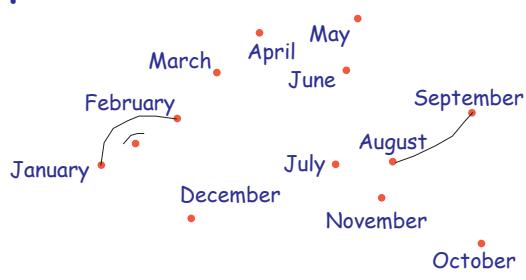
Let us recall the months of the year.



- a. Join the dots in the order of the days and colour the picture.



- b. Join the dots in the order of the months and colour the picture.



- c. Fill in the blanks.

1. A year has _____ days.
2. There are _____ days in a week.
3. Twelve months make _____ year.
4. A month has _____ days.
5. First month of a year is _____.
6. First day of a week is _____.

Let us know

| | |
|-------------|-------------|
| 1 Week | = 7 Days |
| 1 Month | = 30 Days |
| 1 Year | = 12 Months |
| 1 Year | = 365 Days |
| 1 Leap year | = 366 Days |

Leap year

A leap year has 366 days. There are 29 days in February in a leap year. It occurs once in every 4 years. The year 2016 was a leap year. 2020 is a leap year. 2024 will be the next leap year.





5.2 Read a particular day and date

Mahatma Gandhi's birthday date is the 2nd of October 1869.

Write the date 02. 10. 1869 as it is written.

| Date | Month | Year |
|------|-------|------|
| 2 | 10 | 1869 |

1. What is today's date?

2. What is your birthday date?



Try this

Circle the date with the following calendar.



| JANUARY 2018 | | | | | | |
|--------------|-----|-----|-----|-----|-----|-----|
| SUN | MON | TUE | WED | THU | FRI | SAT |
| | 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 | 31 | | | |

| FEBRUARY 2018 | | | | | | |
|---------------|-----|-----|-----|-----|-----|-----|
| SUN | MON | TUE | WED | THU | FRI | SAT |
| | | | | | 1 | 2 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | | | |

1. Round the date 4 january 2018?
2. Round the date 15 januray 2018?
3. Round the date 22 february 2018?
4. Round the date 31 january 2018?
5. Round the date 28 february 2018?
6. Round the date 5/02/2018?
7. Round the date 26/01/2018?
8. Round the sunday date in january 2018?



Activity 1

Find the age of students in your class room.



| Name of the students | | | | |
|----------------------|--|--|--|--|
| Date of Birth | | | | |
| Age | | | | |

Fill in the table with the date of birth of the members in your family.

| Members | Date of birth | Age | 25 th birthday | 40 th birthday |
|---------|---------------|-----|---------------------------|---------------------------|
| Father | | | | |
| Mother | | | | |
| Brother | | | | |
| Sister | | | | |





Practice



1. Look at the calendar of 2018 and fill in the boxes.

Calendar 2018



1. Teachers Day is on _____

2. Independence Day is on _____

3. Republic Day is on _____

4. Children's Day is on _____



2. Match the following.



November 15, 2018

June 16, 2018

April 26, 2018

December 10, 2017

May 26, 2017

26.04.2018

10.12.2017

15.11.2018

26.05.2017

16.06.2018



3. Look at the above calendar and fill in the blanks.

1. Number of days in October 2018 is _____

2. The number of Sundays _____

3. The first Saturday is on _____

4. Last day of the month is _____

5. The tenth day of this month is _____

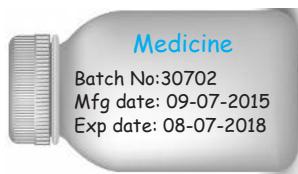
6. The third Wednesday comes on _____

| October 2018 | | | | | | |
|--------------|-----|-----|-----|-----|-----|-----|
| SUN | MON | TUE | WED | THU | FRI | SAT |
| | 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 | 31 | | | |

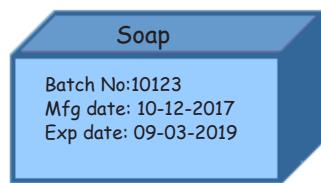


5.3 Manufacture and expiry date

Manufacture date and Expiry date is printed in every items sold in a store. Completely avoid using the items with expired date. It is very bad for health to use those items.



Medicine
Batch No:30702
Mfg date: 09-07-2015
Exp date: 08-07-2018



Soap
Batch No:10123
Mfg date: 10-12-2017
Exp date: 09-03-2019



Honey
Mfg date: 13-11-2017
Exp date: 04-04-2019

Manufacture date: 09-07-2015
Expiry date: 08-07-2018

Manufacture date: 10-12-2017
Expiry date: 09-03-2019

Manufacture date: 13-11-2017
Expiry date: 04-04-2019



Practice



1. Write the manufacture date and expiry date of the following items.

| S.No | Items | Manufacture month or date | Expiry month or date |
|------|-------|---------------------------|----------------------|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |



2. Calculate how many months / days between manufacture and expiry dates.

| S.No | Name of Food products | Manufacture date | Expiry date | Difference |
|------|-----------------------|------------------|-------------|------------|
| 1 | Honey | 15-07-2017 | 18-09-2019 | |
| 2 | Cashew nut | 29-12-2005 | 30-02-2008 | |
| 3 | Pickle | Feb 2018 | Apirl 2018 | |
| 4 | Coffee powder | Aug 2008 | Nov 2008 | |
| 5 | Badam milk | Feb 2019 | March 2019 | |



Activity 2



Fill in the date of manufacture and date of expiry of food products you use in daily life.

| S.No | Name of Food products | Manufacture date | Expiry date |
|------|-----------------------|------------------|-------------|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |



Practice

- Find how many days are there in first 5 months of the leap year.
- Find the next five leap years.
- Circle the ordinary years and box the leap years.

2015 2016 2017 2018 2019 2020 2021
2022 2023 2024 2025 2026 2027 2028
2029 2030 2031 2032 2033 2034 2035



VFK34S





UNIT-6



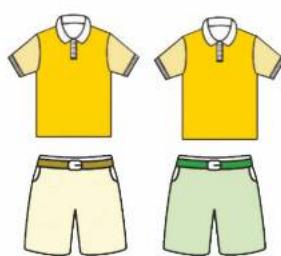
6.1 Systematic Listing

Kavin has taken 2 trousers and 3 shirts with him to wear in a picnic. List down all the possible choices that he can wear them.

Example:



Here are the choices.



picture 1



picture 2

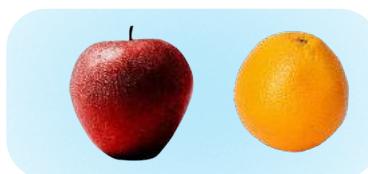


picture 3

There are two possible ways of dressing using one half sleved shirt and two trousers as shown in picture 1. Similarly we shall pair remaining two full sleved shirts with the trouser in four ways as shown in picture 2 and picture 3. Hence there are six possible ways of pairing two trouser with three shirts.



Kaviya likes to eat one vegetable and one fruit in a day. Apples and oranges are her choices among fruits and carrots and cucumbers are her choices among vegetables. Complete the given table by filling the ways she can eat one fruit with one vegetable.



| | | | | |
|-----------|--|--|--|--|
| Fruit | | | | |
| Vegetable | | | | |

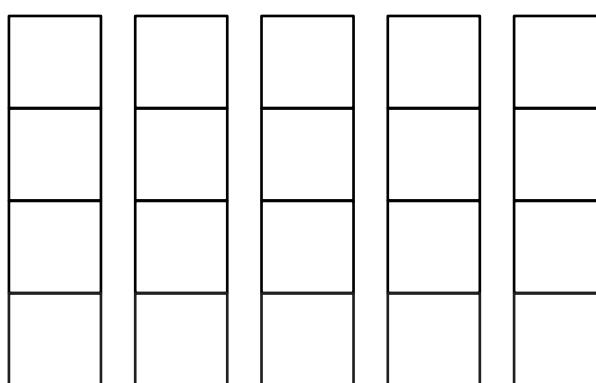


Activity 1



Find all possible ways of colouring the given blocks with blue and red.

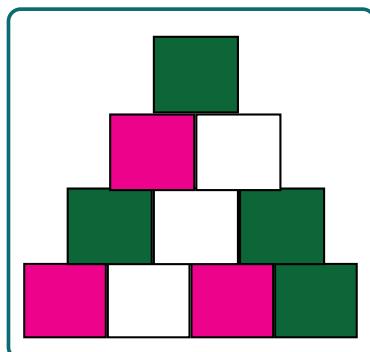
One is done for you.



Activity 2



Fill the white space in the given blocks with alternate colours and answer the following questions based on it.



- Total number of blocks
- Number of rose block
- Number of blocks
- Number of blocks in 2 and 4 row
- How many more than





Example:

List down all possible ways of forming three digit numbers by using the digits 4,5 and 7 once.

457 475 574 547 754 745



Practice



1. List down all possible ways of forming three digit numbers by using the given digits only once.

- i. 9,6,8 ii. 3,2,0 iii. 1, 5, 4

i.

986

968

698

689

896

869

ii.

iii.

2. Find all possible ways of combining the three letters a,e,t using each of them once.

Example:

List all possible 3 lettered words 4 lettered words and 5 lettered words that start with alphabet 'R'.

RIGHT RED RING ROSE RAT
ROAD RIVER RUPEE RUN

Look at the above words and answer the questions.

- Number of 4 lettered words are _____.
- There are _____ 3 lettered words.
- There are _____ 5 lettered words.



Activity 3

1. List down all possible meaningful 3 lettered and 4 lettered words starting with the alphabet 'A'.
2. List the names of the animals with 4 letters.

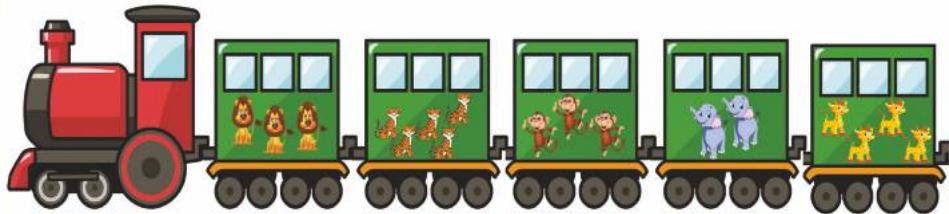
6.2 Collection and Representation of Data



Pictorial Representation

Symbols and pictures can be used to represent data. This is known as **Pictorial Representation**. This helps us to study and understand data easily.

Example: Look at the below picture and fill the required data.



- i. How many are there? **3**
- ii. How many are there? **3**
- iii. Circle the animal which is more in count?



- iv. Circle the animal which is less in count?



- v. What is the difference between highest and lowest count? **3**
- vi. Total number of animals in the zoo train is **17**.



Example:



The following picture represents the data on fruits sold in a shop.

| | |
|-----------|--|
| Apple | |
| Orange | |
| Banana | |
| Pineapple | |

Look at the above picture and fill the required data.

- Name the fruit which was sold more?
- Name the fruit which is sold less. Orange
- Find the number of apples sold.
- Write the number of bananas sold?
- What is the difference in the number of pineapples sold and oranges sold ?



Practice

- Collect the data from 40 of your friends about their favourite food and represent it in Picture.

| Food | Picture | Total |
|-----------|---------|-------|
| Idly | | |
| Dosa | | |
| Poori | | |
| Chappathi | | |





2. The following picture represents the number of chocolates sold at a shop in a week.

= 10 Chocolates

| | |
|-----------|--|
| Monday | |
| Tuesday | |
| Wednesday | |
| Thursday | |
| Friday | |
| Saturday | |

Answer the following questions from the data given in the above table.

i. The total number of chocolates sold on Thursday is



ii. The sale was maximum on

iii. The sale was minimum on

iv. Sales were equal on and



v. The total number of chocolates sold in six days are

3. Collect the data from 40 of your friends about their mode of travel to school and represent it in the picture.

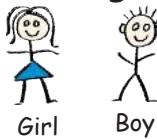
| mode of travel | Picture | Total |
|---------------------|---------|-------|
| By walk | | |
| By bicycle | | |
| By motorcycle | | |
| By public transport | | |
| By school vehicle | | |



6.3 Drawing Conclusion from the Represented Data



The graph below shows the number of children in a school studying in classes 1-4 of a school. The number of girls studying in classes 1-4 of a school are 14, 10, 16 and 13 respectively. Draw the graph discussing with your teacher for number of boys studying in classes 1-4.



| Class | Number of students | Total |
|-----------------------------|--------------------|-------|
| Girl I standard Boy | 14 | |
| Girl II standard Boy | 10 | |
| Girl III standard Boy | 16 | |
| Girl IV standard Boy | 13 | |

After completing the pictorial representation answer the following questions.

- The number of girls in class 2 is _____.
- The number of boys in class 3 is _____.
- The total number of students in class 4 is _____.
- The total number of girls from class 1 to 4 is _____.
- The total number of boys from class 1 to 4 is _____.
- The class which has more strength is _____.



Teacher's note: Teacher can help the children to collect the number of boys in each class and complete the pictorial representation.

