

Contents

| | | |
|------------|-------------------------------|------------|
| 1. | Numbers and Numeration | 5 |
| 2. | Even and Odd Numbers | 23 |
| 3. | Addition | 31 |
| 4. | Subtraction | 44 |
| 5. | Multiplication | 57 |
| 6. | Division | 66 |
| 7. | Fraction | 78 |
| 8. | Money | 85 |
| 9. | Measurement | 97 |
| 10. | Tally Marks | 117 |
| 11. | Time | 123 |
| 12. | Calender | 131 |
| 13. | Geometrical Shapes | 147 |
| 14. | Patterns | 157 |

1



Numbers and Numeration



Learning Objectives

At the end of this lesson, students will be able to:

- Read and write the numbers upto 1000.
- Write the numbers in expanded and short form.
- Compare and arrange the numbers in ascending and descending order.



Warm Up

A. Count and fill in the blanks. One is done for you

| Objects | Tens | Ones | Number |
|---------|------|------|--------|
| | 2 | 3 | 23 |
| | | | |
| | | | |
| | | | |



Smallest 1-digit number is 1
 Greatest 1-digit number is 9
 Smallest 2-digit number is 10
 Greatest 2-digit number is 99



Numbers 100 to 1000

Let us read:

| Number | Number Name |
|--------|-----------------------------------|
| 100 | One hundred |
| 200 | Two hundred |
| 300 | Three hundred |
| 400 | Four hundred |
| 500 | Five hundred |
| 600 | Six hundred |
| 700 | Seven hundred |
| 800 | Eight hundred |
| 900 | Nine hundred |
| 1000 | Ten hundred or One thousand |



Smallest 3-digits number is 100.
 Greatest 3-digits number is 999



Teacher's Note:

Show the students a number of real objects such as pencils, chairs, tables, etc and ask them to count and write down the place value of the number counted.





3-Digit Numbers

As we know,

| Hundreds | Tens | Ones |
|----------|------|------|
| H | T | O |



3- digits numbers starts from 100 to 999.

Complete the following number grids:

(a)

| | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 101 | | | | | | | | |
| | 112 | | | | | | | |
| | | 123 | | | | | | |
| | | | 134 | | | | | |
| | | | | 145 | | | | |
| | | | | | 156 | | | |
| | | | | | | 167 | | |
| | | | | | | | 178 | |
| | | | | | | | | 189 |
| | | | | | | | | 200 |



(b)

| | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|--|--|--|--|
| 201 | | | | | | | | | |
| | | 213 | | | | | | | |
| | | | 224 | | | | | | |
| | | | | 235 | | | | | |
| | | | | | 246 | | | | |
| | | | | 255 | | | | | |
| | | | 264 | | | | | | |
| | | 273 | | | | | | | |
| | 282 | | | | | | | | |
| 290 | | | | | | | | | |

(c)

| | | | | | | | | | |
|-----|-----|-----|-----|--|-----|-----|-----|--|-----|
| 301 | | | | | | | | | |
| | | | | | 316 | | | | |
| | | | 324 | | | | | | |
| | | | | | | | 338 | | |
| | | | | | 346 | | | | |
| | 352 | | | | | | | | |
| | | | 364 | | | | | | |
| | | | | | | 377 | | | |
| | | 383 | | | | | | | |
| | | | | | | | | | 400 |



(d)

| | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|--|--|--|-----|
| 401 | | | | | | | | | |
| | | 413 | | | | | | | |
| | | | 424 | | | | | | |
| | | | | 435 | | | | | |
| | | | | | 446 | | | | |
| | | | | 455 | | | | | |
| | | | 464 | | | | | | |
| | | 473 | | | | | | | |
| | 482 | | | | | | | | |
| | | | | | | | | | 500 |

(e)

| | | | | | | | | | |
|-----|-----|-----|-----|--|-----|-----|-----|--|-----|
| 501 | | | | | | | | | |
| | | | | | 516 | | | | |
| | | | 524 | | | | | | |
| | | | | | | | 538 | | |
| | | | | | 546 | | | | |
| | 552 | | | | | | | | |
| | | | 564 | | | | | | |
| | | | | | | 577 | | | |
| | | 583 | | | | | | | |
| | | | | | | | | | 600 |



Numerals and Numeral Name

Write the numeral name for each of the following numerals:

926

Nine hundred twenty-six



298

642

804

209

129

800

555

241

764

169



Write the numeral for each of the following numeral names:

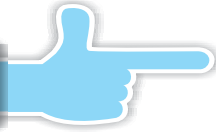
One hundred seventy-two



Seven hundred seventy-six



Four hundred



Two hundred fifty



Five hundred fifty-two



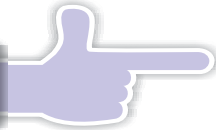
Six hundred thirty-four



One hundred eleven



Nine hundred ninety-nine



Eight hundred fifty-six



Two hundred twelve





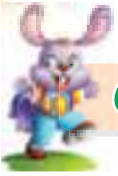
Before-After-Between

Before

After

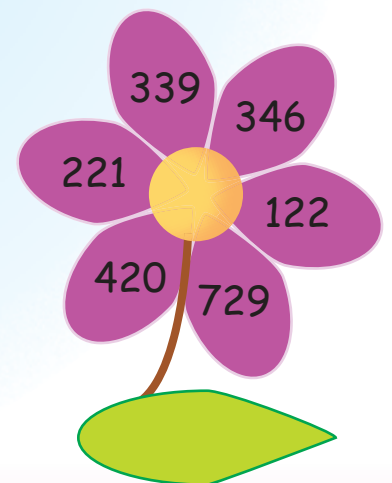
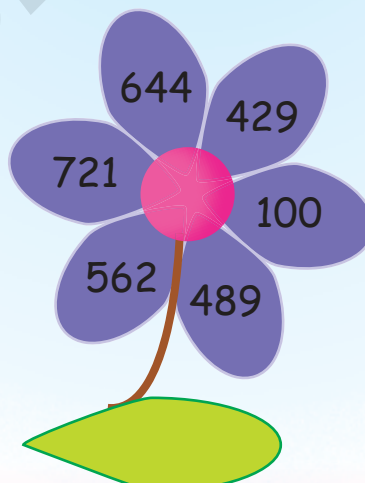
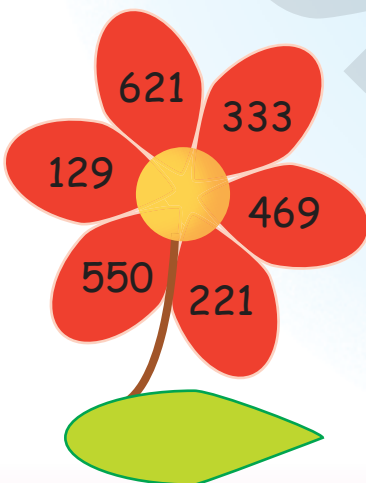
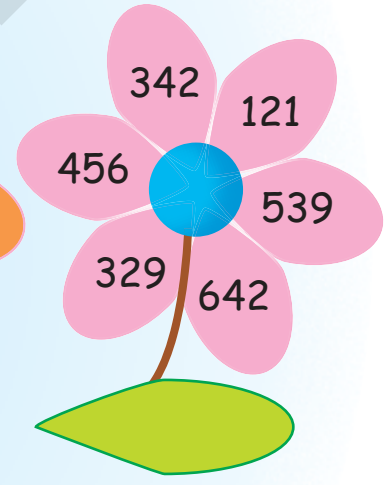
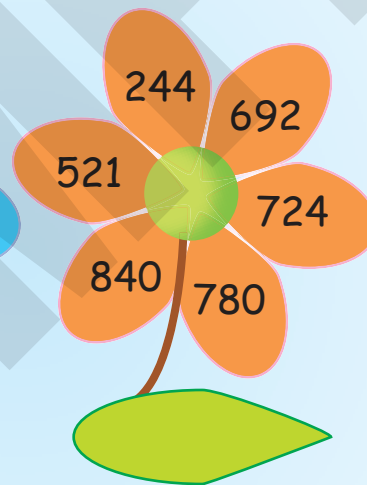
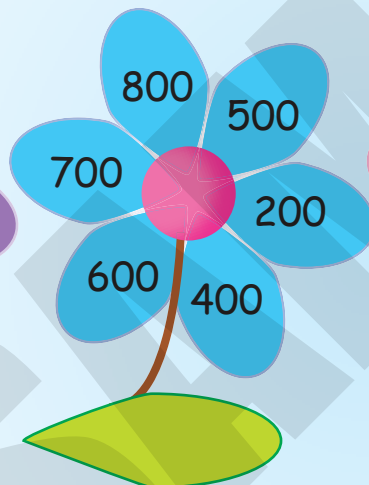
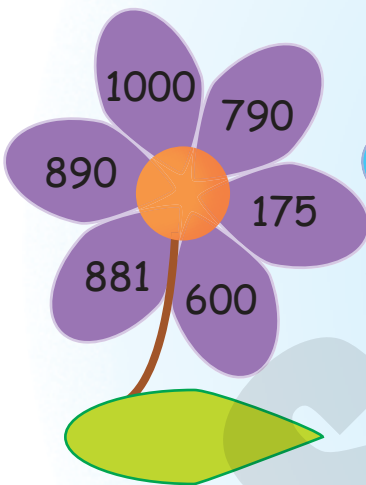
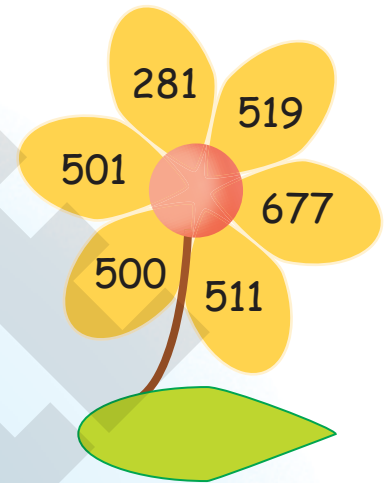
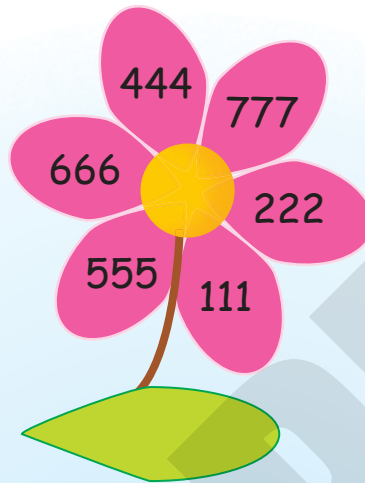
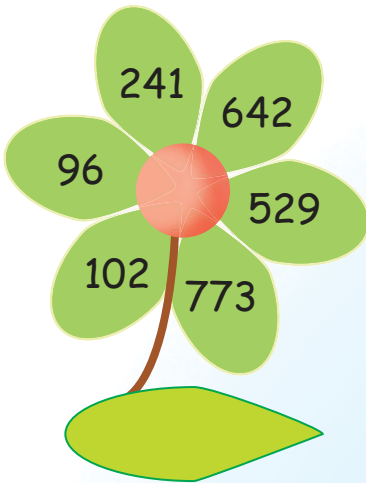
Between





Comparison

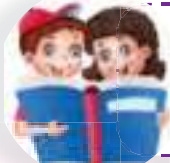
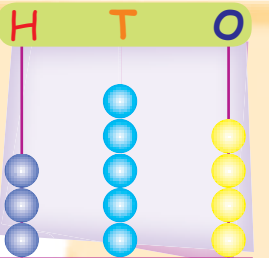
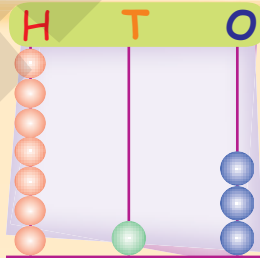
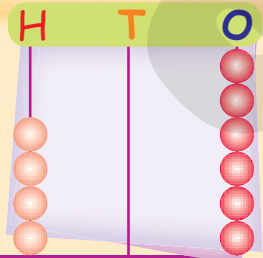
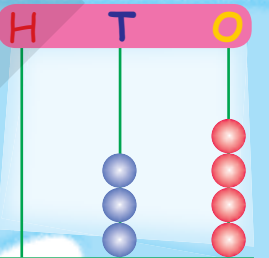
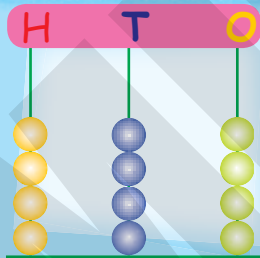
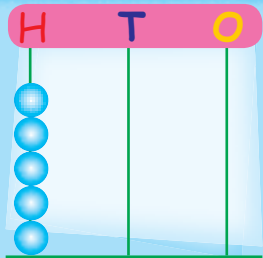
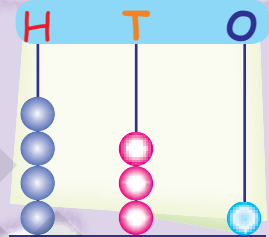
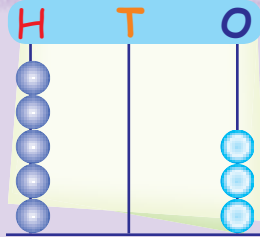
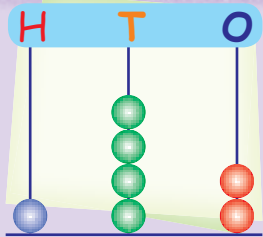
Write the smallest number in the center of the flower and the largest number in the leaf of the flower:





Abacus

Read the numbers shown on the Abacus and write the numeral and numeral name:



Facts to Know

The person who uses the abacus is called an abacist.





Expanded Form

Write the following numbers in expanded form:

241 = Hundreds + Tens + Ones

562 = Hundreds + Tens + Ones

429 = Hundreds + Tens + Ones

777 = Hundreds + Tens + Ones

890 = Hundreds + Tens + Ones

600 = Hundreds + Tens + Ones

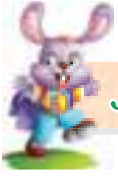
102 = Hundreds + Tens + Ones

211 = Hundreds + Tens + Ones

342 = Hundreds + Tens + Ones

529 = Hundreds + Tens + Ones





Short Form

Write the short form of each of the following numbers:

3 Hundreds + 2 Tens + 5 Ones =

5 Hundreds + 0 Tens + 2 Ones =

2 Hundreds + 0 Tens + 0 Ones =

8 Hundreds + 9 Tens + 7 Ones =

4 Hundreds + 4 Tens + 4 Ones =

1 Hundreds + 0 Tens + 5 Ones =

7 Hundreds + 2 Tens + 3 Ones =

3 Hundreds + 7 Tens + 0 Ones =

4 Hundreds + 0 Tens + 0 Ones =

2 Hundreds + 2 Tens + 2 Ones =





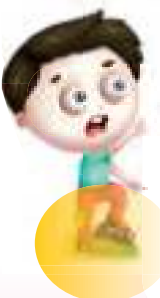
Ordering Numbers

Arranging the numerals in either ascending (increasing) order or descending (decreasing) order is called ordering of numbers.



Ascending Order

Arrange the following numbers in ascending order:



Quick Tip

If the numbers have the same numbers (three) of digits, then the digits on the extreme left are compared in order to arrange it in ascending or descending order.

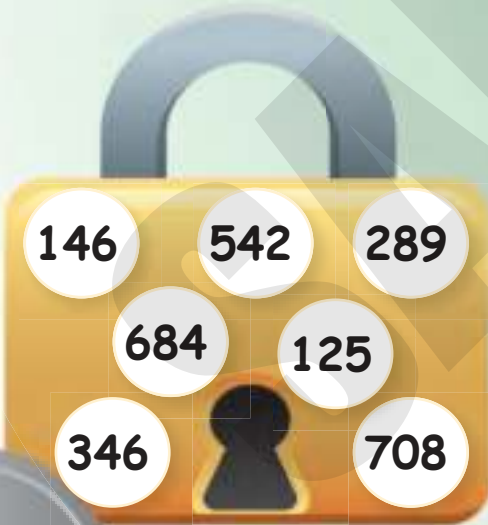






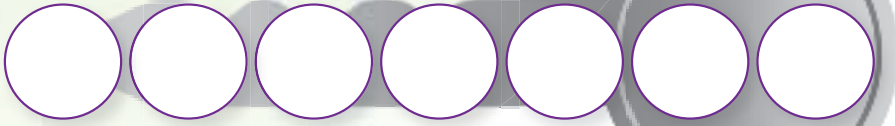
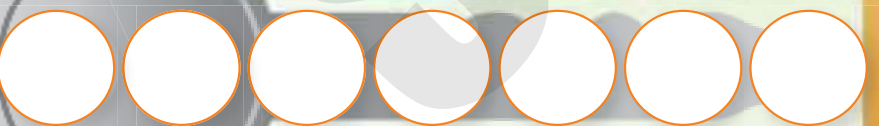
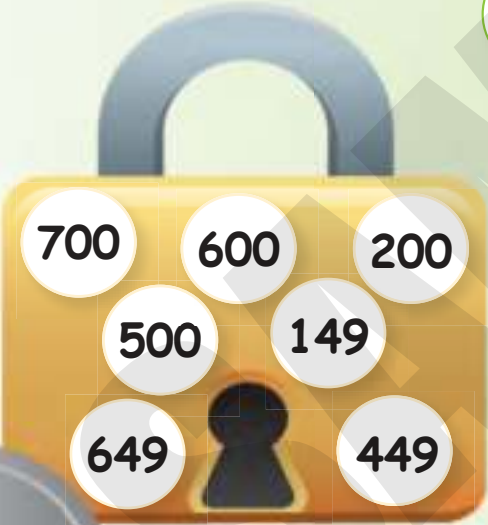
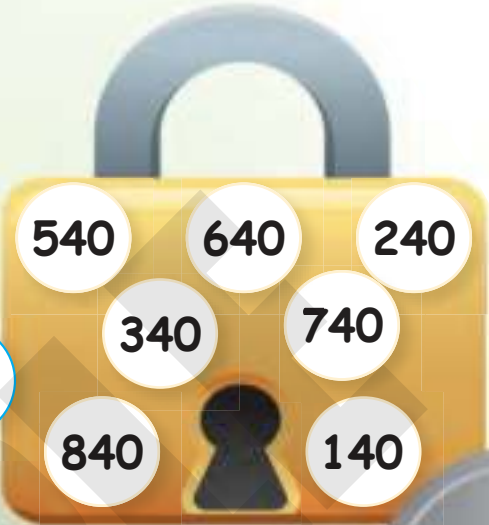
Descending Order

Arrange the following numbers in descending order:



A horizontal row of ten empty circles for writing the numbers in descending order. The first two circles are yellow, and the remaining eight are red.







Think Wisely

The letters represent the following numbers. Make the numbers from it.

R = 4

U = 5

N = 2

S = 7

A = 8

B = 3

T = 6

I = 1



RUN



ANT



TUB



SIR



SUN



BAT



Mental Maths

A. Give the place value of the underlined digit.

a. 764 = _____

b. 507 = _____

c. 558 = _____

d. 846 = _____

e. 569 = _____

f. 933 = _____

B. Give one number for :

a. 700 + 5 = _____

c. 6 tens + 3 ones = _____

b. 500 + 10 + 1 = _____

d. 4 hundreds + 1 tens + 7 ones = _____





Maths Lab Activity

Materials required: 3 dice

1. Take three dice. Throw them together. Form the largest and the smallest numbers that appear on dice.

Example :



5



6



1

Number on dice:

Largest number - 651

Smallest Number - 156

Ask your two friends to do the same. Find out who got the greatest or the highest number and the least or the smallest number.



2



Even and Odd Numbers



Learning Objectives

At the end of this lesson, students will be able to :

- Identify even and odd numbers.
- Write even and odd numbers.
- Make the number grid.



Warm Up

Sing the song along !

Even numbers, even numbers,
Even numbers, shout them out!
2, 4, 6, 8, 10!
Line them up by twos and then,
All the evens have a friend!
2, 4, 6, 8, 10!
All the evens have a friend.
Odd numbers, odd numbers,
Odd numbers, shout them out!
1, 3, 5, 7, 9!
When you try to group by twos,
There's an extra you can't use.
1, 3, 5, 7, 9!
Odd man out, no friend in line.





EVEN Number



2




4



6



8



Any number that can be made into pairs is an even number.

All the numbers that have 0, 2, 4, 6, 8 at the ONES place are called **even** numbers.



Teacher's Note:

Ask the students to stand in a circle and sing the song together. Tell them to pair up the nearest person every time the word 'pair' or 'two by two' comes up, otherwise stand alone. Explain the meaning of odd and even numbers to students with the help of the song.



Any number that cannot be made into pairs is an odd number.

All the numbers that have 1, 3, 5, 7, 9 at the ONES place are called **odd** numbers.





After every odd number, there is an even number.

OR

Before every even number, there is an odd number.



Count And Write

Count the number of objects and make the pairs to find whether the number is EVEN or ODD:

| OBJECTS | ODD | EVEN |
|---------|-----|------|
| | | 4 |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |



Facts to Know

Even numbers when multiplied by any number always result in an even number.



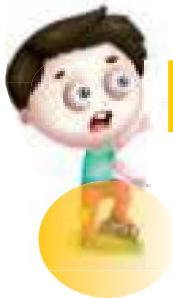


Number Grid



Write the even numbers:

| | | | | | | | |
|-----|-----|--|--|--|--|--|--|
| 42 | 44 | | | | | | |
| 28 | 30 | | | | | | |
| 52 | 54 | | | | | | |
| 90 | 92 | | | | | | |
| 112 | 114 | | | | | | |
| 102 | 104 | | | | | | |
| 542 | 544 | | | | | | |



Quick Tip

In a two digit number or three digit number or four digit number, to check whether it is even or odd, look at the digit at the ones place. If the digit at the one's place is 0 or 2 or 4 or 6 or 8, then the number is even. If the digit at the ones place is 1 or 3 or 5 or 7, then the number is odd.





Write the odd numbers:

| | | | | | | | |
|-----|-----|--|--|--|--|--|--|
| 29 | 31 | | | | | | |
| 53 | 55 | | | | | | |
| 69 | 71 | | | | | | |
| 11 | 13 | | | | | | |
| 93 | 95 | | | | | | |
| 113 | 115 | | | | | | |
| 145 | 147 | | | | | | |
| 671 | 673 | | | | | | |
| 929 | 931 | | | | | | |
| 555 | 557 | | | | | | |





Think Wisely

Find the sum of:

(i) first 7 odd numbers -

(ii) first 10 even numbers -



Mental Maths

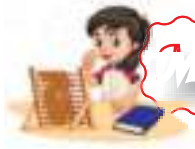
A. Write T for True and F for False statements:

1. 8 is the last odd number before 10.
2. Even numbers can be made into 2 equal groups.
3. A pair of shoes is even.
4. When you add 2 odd numbers, the answer will also be an odd number.

B. Answer in one word:

1. Which number is even, 2 or 3? _____
2. How many odd numbers are there before 10? _____
3. How many letters are there in your name?
Is it odd or even? _____
4. Which is the biggest even number before 10? _____





Maths Lab Activity

Materials required: A sheet of paper, pencils and crayons.

Steps:

1. Ask the students to take a white sheet of paper and draw a big house in the centre of the sheet.
2. Draw an odd number of trees in a garden around the house.
3. Fill in the sky with an even number of birds and an odd number of clouds.
4. Draw an even number of plants but an odd number of flowers on the plants.
5. Draw an odd number of children playing in the garden.

Now, ask the students to colour the picture. Display the picture in the classroom.



3



Addition



Learning Objectives

At the end of this lesson, students will be able to:

- Do the addition upto 3 digit numbers.
- Add 3 digit numbers with carry over.
- Add using expanded form.
- Solve the story sums based on addition.



Warm Up

This is Honey's shop. Today he sold the following:

25 blue pens and 30 black pens.
How many pens did he sell?



17 erasers in the morning and 12 in the evening.
How many erasers did he sell?



Please revise addition that you have done in class I.



The addition of numbers is known as **sum**.



Addition of 1-Digit Numbers

Find the sum:

$$\begin{array}{r} 7 \\ + 2 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ + 2 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ + 3 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ + 7 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ + 2 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ + 8 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ + 7 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ + 9 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ + 6 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ + 4 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ 2 \\ + 5 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ 3 \\ + 2 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ 6 \\ + 2 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ 8 \\ + 6 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ 7 \\ + 3 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ 0 \\ + 1 \\ \hline \\ \hline \end{array}$$

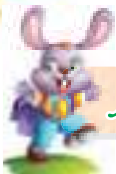
$$\begin{array}{r} 5 \\ 4 \\ + 6 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ 2 \\ + 8 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ 4 \\ + 2 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ 7 \\ + 3 \\ \hline \\ \hline \end{array}$$





Addition of 2-Digit Numbers

Find the sum:

$$\begin{array}{r} 51 \\ + 26 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 22 \\ + 26 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 48 \\ + 56 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 33 \\ + 25 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 51 \\ + 26 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 22 \\ + 26 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 48 \\ + 56 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 33 \\ + 25 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 29 \\ + 38 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 42 \\ + 67 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 48 \\ + 59 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 63 \\ + 23 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 25 \\ + 69 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 81 \\ + 18 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 45 \\ + 66 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 99 \\ + 12 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 42 \\ 61 \\ + 89 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 19 \\ 23 \\ + 18 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ 60 \\ + 40 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 55 \\ 22 \\ + 11 \\ \hline \\ \hline \end{array}$$



Teacher's Note:

Apprise students that while adding, always add ones, then tens and so on.





Addition of 3-Digit Numbers (Without Carry Over)

Example-1

Add: 421 and 364

| H | T | O |
|-------|---|---|
| 4 | 2 | 1 |
| + 3 | 6 | 4 |
| <hr/> | | |

Step 1 : Put the numbers in correct vertical columns.

| H | T | O |
|-------|---|---|
| 4 | 2 | 1 |
| + 3 | 6 | 4 |
| <hr/> | | |
| | | 5 |

Step 2 : Add the digits in ONES column.

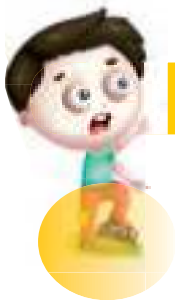
Step 3 : Add the digits in TENS column.

| H | T | O |
|-------|---|---|
| 4 | 2 | 1 |
| + 3 | 6 | 4 |
| <hr/> | | |
| | 8 | 5 |

Step 4 : Add the digits in HUNDREDS column.

So, $421 + 364 = 785$

| H | T | O |
|-------|---|---|
| 4 | 2 | 1 |
| + 3 | 6 | 4 |
| <hr/> | | |
| 7 | 8 | 5 |



Quick Tip

To add 99 to a number, add 100 and subtract 1.

$$\begin{aligned}
 & 736 + 99 \\
 = & 736 + 100 - 1 \\
 = & 836 - 1 \\
 = & 835
 \end{aligned}$$



Example-2

Add: 423, 102 and 310

Step 1 : Add Ones.


Step 2 : Add Tens.

Step 3 : Add Hundreds.


| H | T | O |
|-------|---|---|
| 4 | 2 | 3 |
| + 1 | 0 | 2 |
| + 3 | 1 | 0 |
| <hr/> | | |
| 8 | 3 | 5 |

So, $423 + 102 + 310 = 835$


Find the sum:




| | | |
|-------|---|---|
| 5 | 2 | 4 |
| + 2 | 6 | 3 |
| <hr/> | | |
| <hr/> | | |




| | | |
|-------|---|---|
| 1 | 2 | 3 |
| + 2 | 6 | 4 |
| <hr/> | | |
| <hr/> | | |




| | | |
|-------|---|---|
| 2 | 0 | 8 |
| + 5 | 4 | 1 |
| <hr/> | | |
| <hr/> | | |



| | | |
|-------|---|---|
| 1 | 4 | 9 |
| + 2 | 5 | 0 |
| <hr/> | | |
| <hr/> | | |




| | | |
|-------|---|---|
| 1 | 6 | 0 |
| + 1 | 0 | 0 |
| <hr/> | | |
| <hr/> | | |




| | | |
|-------|---|---|
| 2 | 2 | 2 |
| + 3 | 3 | 3 |
| <hr/> | | |
| <hr/> | | |



| | | |
|-------|---|---|
| 5 | 2 | 1 |
| + 4 | 4 | 2 |
| <hr/> | | |
| <hr/> | | |



| | | |
|-------|---|---|
| 2 | 3 | 6 |
| + 7 | 2 | 1 |
| <hr/> | | |
| <hr/> | | |



| | | |
|-------|---|---|
| 1 | 5 | 6 |
| + 2 | 3 | 2 |
| <hr/> | | |
| <hr/> | | |



Facts to Know

Addition was first used extensively by the Chinese almost 6,000 years ago, it is safe to say the Chinese invented addition.



$$\begin{array}{r} 106 \\ + 501 \\ + 291 \\ \hline \end{array}$$

$$\begin{array}{r} 300 \\ + 406 \\ + 200 \\ \hline \end{array}$$

$$\begin{array}{r} 123 \\ + 760 \\ + 106 \\ \hline \end{array}$$

$$\begin{array}{r} 100 \\ + 200 \\ + 500 \\ \hline \end{array}$$

$$\begin{array}{r} 160 \\ + 210 \\ + 520 \\ \hline \end{array}$$

$$\begin{array}{r} 345 \\ + 421 \\ + 231 \\ \hline \end{array}$$

$$\begin{array}{r} 111 \\ + 222 \\ + 555 \\ \hline \end{array}$$

$$\begin{array}{r} 126 \\ + 221 \\ + 420 \\ \hline \end{array}$$

$$\begin{array}{r} 102 \\ + 501 \\ + 215 \\ \hline \end{array}$$

$$\begin{array}{r} 627 \\ + 120 \\ + 252 \\ \hline \end{array}$$

$$\begin{array}{r} 343 \\ + 123 \\ + 222 \\ \hline \end{array}$$

$$\begin{array}{r} 730 \\ + 126 \\ + 102 \\ \hline \end{array}$$

Add:

$243 + 123 = \boxed{}$

$102 + 641 = \boxed{}$

$146 + 252 = \boxed{}$

$340 + 259 = \boxed{}$

$111 + 333 = \boxed{}$

$360 + 420 = \boxed{}$

$171 + 108 = \boxed{}$

$629 + 140 = \boxed{}$



$660 + 210 = \boxed{}$

$321 + 462 = \boxed{}$

$220 + 330 = \boxed{}$

$621 + 352 = \boxed{}$

$124 + 110 + 120 = \boxed{}$

$213 + 315 + 210 = \boxed{}$

$520 + 236 + 121 = \boxed{}$

$100 + 400 + 300 = \boxed{}$

$269 + 420 + 110 = \boxed{}$

$103 + 211 + 610 = \boxed{}$

$721 + 118 + 150 = \boxed{}$

$661 + 112 + 215 = \boxed{}$

$146 + 120 + 322 = \boxed{}$

$173 + 206 + 120 = \boxed{}$

$243 + 123 + 120 = \boxed{}$

$371 + 212 + 312 = \boxed{}$



Addition of 3-Digit Numbers (With Carry Over)

Example-1

Add: 429 and 384

Step 1 : Put the numbers in correct vertical columns.

| | H | T | O |
|-------|---|---|---|
| | 4 | 2 | 9 |
| + | 3 | 8 | 4 |
| <hr/> | | | |
| <hr/> | | | |

Step 2 : Add the digits in ONES column.

$9 \text{ Ones} + 4 \text{ Ones} = 13 \text{ Ones}$



= 1 Ten + 3 Ones

Write 3 in Ones column and 1 in Tens column.

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

Step 3 : Add the digits in TENS column.

2 Tens + 8 Tens + 1 Ten (Carried over)

= 11 Tens

= 1 Hundred + 1 Tens

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

Step 4 : Add the digits in HUNDREDS column.

4 Hundreds + 3 Hundreds + 1 Hundred
(Carried over)

= 8 Hundreds

∴ Sum = 429 + 384 = 813

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

Example-2

Add: 286, 459 and 120

Step 1 : Add Ones.

Step 2 : Add Tens.

Step 3 : Add Hundreds.

Sum

= 286 + 459 + 120

= 865

| | H | T | O |
|---|---|---|---|
| | 1 | 1 | |
| | 2 | 8 | 6 |
| + | 4 | 5 | 9 |
| + | 1 | 2 | 0 |
| | | | 5 |

Find the sum:

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

| H | T | O |
|---|---|---|
| 0 | 9 | 6 |
| + | 9 | 8 |
| 9 | 8 | 7 |

| H | T | O |
|---|---|---|
| 7 | 7 | 7 |
| + | 2 | 6 |
| 2 | 6 | 6 |

| H | T | O |
|---|---|---|
| 8 | 0 | 0 |
| + | 1 | 0 |
| 1 | 0 | 0 |

| H | T | O |
|---|---|---|
| 5 | 5 | 5 |
| + | 2 | 9 |
| 2 | 9 | 6 |

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

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

| H | T | O |
|---|---|---|
| 5 | 2 | 9 |
| + | 1 | 0 |
| 1 | 0 | 2 |

| H | T | O |
|---|---|---|
| 7 | 5 | 9 |
| + | 1 | 9 |
| 1 | 9 | 8 |

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

| H | T | O |
|---|---|---|
| 2 | 4 | 3 |
| + | 7 | 8 |
| 7 | 8 | 9 |

| H | T | O |
|---|---|---|
| 6 | 2 | 0 |
| + | 8 | 5 |
| 8 | 5 | 9 |

| H | T | O |
|---|---|---|
| 1 | 4 | 2 |
| + | 9 | 7 |
| 9 | 7 | 2 |

| H | T | O |
|---|---|---|
| 6 | 9 | 8 |
| + | 5 | 2 |
| 5 | 2 | 0 |

| H | T | O |
|---|---|---|
| 3 | 4 | 6 |
| + | 9 | 7 |
| 9 | 7 | 8 |



Add:

$349 + 462 = \boxed{}$

$364 + 296 = \boxed{}$

$142 + 649 = \boxed{}$

$348 + 245 = \boxed{}$

$729 + 106 = \boxed{}$

$926 + 56 = \boxed{}$

$842 + 950 = \boxed{}$

$672 + 988 = \boxed{}$

$298 + 376 = \boxed{}$

$376 + 459 = \boxed{}$

$501 + 204 + 199 = \boxed{}$

$296 + 198 + 421 = \boxed{}$

$101 + 220 + 660 = \boxed{}$

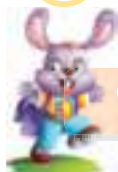
$440 + 210 + 511 = \boxed{}$

$369 + 478 + 110 = \boxed{}$

$433 + 209 + 111 = \boxed{}$

$134 + 446 + 387 = \boxed{}$

$732 + 29 + 108 = \boxed{}$



Word Problems

There were 429 books in a school library. The school bought 268 books more. How many books are there in all?



A shopkeeper sold 259 bananas on Monday, 400 bananas on Tuesday and 146 bananas on Wednesday. How many bananas did he sell in these three days?



Shreya collected 269 red flowers.
Sona collected 456 white flowers.
Radha collected 150 purple flowers.
How many flowers did they collect in all?



Sarthak counted 368 big cars and 486 small cars on the road. What is the total number of cars he counted?



There are 120 mango trees, 468 coconut trees and 372 apple trees planted in a park. How many trees were planted in all?



There are 843 bees in the hive. 108 more bees flew into the hive. What is the total number of bees in the hive now?



There are 446 girls and 388 boys in a school. How many students are there in all?



There are 286 red beads, 349 green beads and 142 purple beads in a necklace. What is the total number of beads in the necklace?





Think Wisely

Which number am I?

Which number am I?

- I stand at ones place, I am 3 less than 9.
- I am 1 more than 8 and stand at tens place.
- I stay at hundreds place and come between the number 5 and 3.



Mental Maths

A. Solve mentally. Call out the steps as you do.

a. $20 + 70 =$ _____

b. $60 + 40 =$ _____

c. $40 + 40 =$ _____

d. $30 + 60 =$ _____

e. $20 + 90 =$ _____

f. $90 + 80 =$ _____

B. Add. Then put a tick mark on the right pictures.

1. Which two boxes would you choose to get 75 marbles.



43

A



33

B



32

C

2. Which two boys have 66 Stamps together?



Karan has 19 stamps



Amit has 47 stamps



Raman has 37 stamps



4



Subtraction



Learning Objectives

At the end of this lesson, students will be able to:

- Do the subtraction upto 3 digit numbers.
- Subtract 3 digit numbers with borrowing.
- Solve the story sums based on subtraction.
- Check the subtraction using addition.



Warm Up

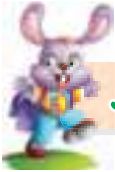
Sweetie celebrated her birthday. She bought the following:

| | | | |
|---------------|---|--|----------------------|
| | She bought | She used | How many left? |
| Party poppers |  |  | <input type="text"/> |

| | | | |
|---------------|---|--|----------------------|
| | She bought | She used | How many left? |
| Birthday Caps |  |  | <input type="text"/> |
| |  |  | |
| |  |  | |



Please revise subtraction that you have done in class I.



Subtraction of 1-Digit Numbers

Find the subtraction:

$$\begin{array}{r} 3 \\ - 2 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ - 2 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ - 3 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ - 6 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ - 6 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ - 2 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ - 3 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ - 1 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ - 0 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ - 1 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ - 4 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ - 4 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ - 3 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ - 3 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ - 2 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ - 0 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ - 3 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ - 1 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ - 2 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ - 2 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ - 2 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ - 3 \\ \hline \end{array}$$



Teacher's Note:

Ask the students to recall the facts of subtraction learnt in class 1 that we should always subtract smaller number from the greater number.





Subtraction of 2-Digit Numbers



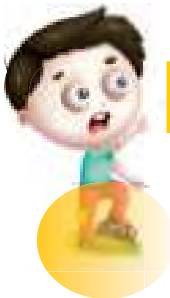
Find the subtraction:

| |
|------|
| 51 |
| - 20 |
| --- |
| |
| 86 |
| - 52 |
| --- |
| |
| 56 |
| - 48 |
| --- |
| |
| 89 |
| - 62 |
| --- |
| |
| 44 |
| - 22 |
| --- |
| |

| |
|------|
| 26 |
| - 22 |
| --- |
| |
| 72 |
| - 60 |
| --- |
| |
| 36 |
| - 28 |
| --- |
| |
| 23 |
| - 19 |
| --- |
| |
| 66 |
| - 32 |
| --- |
| |

| |
|------|
| 50 |
| - 30 |
| --- |
| |
| 98 |
| - 24 |
| --- |
| |
| 67 |
| - 48 |
| --- |
| |
| 70 |
| - 36 |
| --- |
| |
| 90 |
| - 22 |
| --- |
| |

| |
|------|
| 36 |
| - 25 |
| --- |
| |
| 56 |
| - 34 |
| --- |
| |
| 59 |
| - 58 |
| --- |
| |
| 77 |
| - 66 |
| --- |
| |
| 73 |
| - 46 |
| --- |
| |



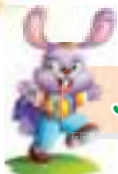
Quick Tip

To subtract 9, we simply subtract 10 and then add 1.

For e.g.

$$\begin{aligned} & 87 - 9 \\ &= 87 - 10 + 1 \\ &= 77 + 1 \\ &= 78 \end{aligned}$$





Subtraction of 3-Digit Numbers (Without Borrow)

Subtract: 346 and 758

Step 1 : Put the numbers in correct vertical columns.

| H | T | O |
|-------|---|---|
| 7 | 5 | 8 |
| - 3 | 4 | 6 |
| <hr/> | | |

Step 2 : Subtract the digits in ONES column.

| H | T | O |
|-------|---|---|
| 7 | 5 | 8 |
| - 3 | 4 | 6 |
| <hr/> | | 2 |

Step 3 : Subtract the digits in TENS column.



| H | T | O |
|-------|---|-----|
| 7 | 5 | 8 |
| - 3 | 4 | 6 |
| <hr/> | | 1 2 |

Step 4 : Subtract the digits in HUNDREDS column.

So, $758 - 346 = 412$

| H | T | O |
|-------|---|---|
| 7 | 5 | 8 |
| - 3 | 4 | 6 |
| <hr/> | | |
| 4 | 1 | 2 |

Find the subtraction:

| | | |
|-------|---|---|
| 9 | 5 | 3 |
| - 4 | 3 | 2 |
| <hr/> | | |

| | | |
|-------|---|---|
| 2 | 7 | 4 |
| - 1 | 2 | 3 |
| <hr/> | | |

| | | |
|-------|---|---|
| 5 | 2 | 4 |
| - 2 | 0 | 0 |
| <hr/> | | |

| | | |
|-------|---|---|
| 1 | 6 | 0 |
| - 1 | 0 | 0 |
| <hr/> | | |

| | | |
|-------|---|---|
| 6 | 6 | 6 |
| - 4 | 4 | 4 |
| <hr/> | | |

| | | |
|-------|---|---|
| 2 | 4 | 9 |
| - 1 | 3 | 7 |
| <hr/> | | |

| | | |
|-------|---|---|
| 5 | 6 | 9 |
| - 4 | 3 | 2 |
| <hr/> | | |

| | | |
|-------|---|---|
| 9 | 8 | 6 |
| - 8 | 5 | 4 |
| <hr/> | | |

| | | |
|-------|---|---|
| 3 | 9 | 6 |
| - 1 | 2 | 4 |
| <hr/> | | |



$$\begin{array}{r} 500 \\ - 400 \\ \hline \end{array}$$

$$\begin{array}{r} 418 \\ - 204 \\ \hline \end{array}$$

$$\begin{array}{r} 459 \\ - 226 \\ \hline \end{array}$$

$$\begin{array}{r} 546 \\ - 205 \\ \hline \end{array}$$

$$\begin{array}{r} 148 \\ - 136 \\ \hline \end{array}$$

$$\begin{array}{r} 249 \\ - 138 \\ \hline \end{array}$$



Subtract

S
U
B
T
R
A
C
T

202

from

659

=

154

from

786

=

760

from

980

=

555

from

777

=

524

from

699

=

421

from

656

=

362

from

475

=

382

from

594

=

751

from

864

=

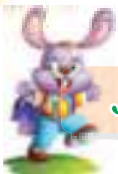
110

from

211

=





Subtraction of 3-Digit Numbers (With Borrow)

Subtract: 692 from 971

Step 1 : Put the numbers in correct vertical columns.

| H | T | O |
|-----|---|---|
| 9 | 7 | 1 |
| - 6 | 9 | 2 |
| | | |

Step 2 : Subtract the ONES.

$$2 > 1$$

So, we cannot subtract 2 ones from 1 ones.

We borrow 1 ten.

Now, we have

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

$$10 \text{ ones} + 1 \text{ ones} = 11 \text{ ones}$$

$$\text{So, } 11 \text{ ones} - 2 \text{ ones} = 9 \text{ ones}$$

| H | T | O |
|-----|--------------|--------------|
| | 6 | 11 |
| 9 | 7 | 1 |
| - 6 | 9 | 2 |
| | | |
| 9 | | |

Step 3 : Subtract the TENS.

$$9 > 6$$

Here, we borrow 1 hundred

Now, we have

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

$$10 \text{ tens} + 6 \text{ tens} = 16 \text{ tens}$$

$$16 \text{ tens} - 9 \text{ tens} = 7 \text{ tens}$$

| H | T | O |
|--------------|--------------|--------------|
| 8 | 16 | 11 |
| 9 | 7 | 1 |
| - 6 | 9 | 2 |
| | | |
| 7 9 | | |

Step 4 : Subtract the HUNDREDS.

$$6 < 8$$

8 hundreds - 6 hundreds

= 2 hundreds

$$\text{So, } 971 - 692 = 279$$

| H | T | O |
|--------------|--------------|--------------|
| 8 | 16 | 11 |
| 9 | 7 | 1 |
| - 6 | 9 | 2 |
| | | |
| 2 7 9 | | |



Find the subtraction:

| H | T | O | |
|-------|---|---|---|
| 4 | 5 | 6 | |
| - | 2 | 9 | 5 |
| _____ | | | |
| _____ | | | |

| H | T | O | |
|-------|---|---|---|
| 7 | 2 | 4 | |
| - | 3 | 4 | 6 |
| _____ | | | |
| _____ | | | |

| H | T | O | |
|-------|---|---|---|
| 9 | 5 | 3 | |
| - | 7 | 9 | 7 |
| _____ | | | |
| _____ | | | |

| H | T | O | |
|-------|---|---|---|
| 8 | 8 | 0 | |
| - | 7 | 9 | 9 |
| _____ | | | |
| _____ | | | |

| H | T | O | |
|-------|---|---|---|
| 2 | 1 | 1 | |
| - | 1 | 2 | 2 |
| _____ | | | |
| _____ | | | |

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

| H | T | O | |
|-------|---|---|---|
| 6 | 9 | 5 | |
| - | 5 | 0 | 8 |
| _____ | | | |
| _____ | | | |

| H | T | O | |
|-------|---|---|---|
| 3 | 5 | 9 | |
| - | 2 | 9 | 6 |
| _____ | | | |
| _____ | | | |

| H | T | O | |
|-------|---|---|---|
| 7 | 6 | 2 | |
| - | 6 | 9 | 8 |
| _____ | | | |
| _____ | | | |

| H | T | O | |
|-------|---|---|---|
| 9 | 4 | 6 | |
| - | 2 | 4 | 9 |
| _____ | | | |
| _____ | | | |

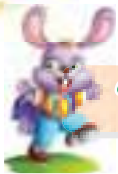
| H | T | O | |
|-------|---|---|---|
| 5 | 5 | 4 | |
| - | 2 | 9 | 8 |
| _____ | | | |
| _____ | | | |

| H | T | O | |
|-------|---|---|---|
| 9 | 0 | 8 | |
| - | 2 | 7 | 9 |
| _____ | | | |
| _____ | | | |

| H | T | O | |
|-------|---|---|---|
| 6 | 0 | 0 | |
| - | 5 | 4 | 6 |
| _____ | | | |
| _____ | | | |

| H | T | O | |
|-------|---|---|---|
| 8 | 7 | 2 | |
| - | 6 | 3 | 9 |
| _____ | | | |
| _____ | | | |

| H | T | O | |
|-------|---|---|---|
| 7 | 9 | 2 | |
| - | 8 | 0 | 5 |
| _____ | | | |
| _____ | | | |



Word Problems

A fruits seller had 520 mangoes in his shop. He sold 269 mangoes. How many mangoes were left?



A carpenter had 624 nails. He used 396 nails. How many nails are left unused?



Rachita scored 395 marks and her friend scored 400 marks. How many more marks has her friend scored?



Ritu has 250 cartoon stickers and Payal has 164 cartoon stickers. How many more stickers did Ritu had?



Facts to Know

"Subtraction" is an English word derived from the Latin verb subtrahere, which in turn is a compound of sub "from under" and trahere "to pull". Thus, to subtract is to draw from below, or to take away.





Checking Subtraction Using Addition

Difference + Smaller Number = Larger Number

Let's see,

$$\begin{array}{r}
 24 \\
 - 13 \\
 \hline
 11
 \end{array}$$

← Larger Number
← Smaller Number
← Difference

Now,

$$\begin{array}{r}
 \text{Difference} \\
 + \text{Smaller Number} \\
 \hline
 \text{Large Number}
 \end{array}$$

$$\begin{array}{r}
 11 \\
 + 13 \\
 \hline
 24
 \end{array}$$

← Difference
← Smaller Number
← Larger Number

Thus, subtraction is correct.

Subtract: 246 from 301

| | | | | |
|---|--------------|--------------|--------------|----------------|
| | H | T | O | |
| | 2 | 9 | 11 | |
| | 3 | 0 | 1 | Larger Number |
| - | 2 | 4 | 6 | Smaller Number |
| | 0 | 5 | 5 | Difference |

$$301 - 246 = 55$$

Checking Subtraction:

| | | | | |
|---|---|---|---|----------------|
| | H | T | O | |
| | 1 | 1 | | |
| | 0 | 5 | 5 | Difference |
| + | 2 | 4 | 6 | Smaller Number |
| | 3 | 0 | 1 | Larger Number |

Thus, subtraction is correct.



Find the difference. Also check it using addition:

Subtract

Check

$$\begin{array}{r} 23 \\ - 10 \\ \hline \end{array}$$

$$\begin{array}{r} 92 \\ - 64 \\ \hline \end{array}$$

$$\begin{array}{r} 56 \\ - 29 \\ \hline \end{array}$$

$$\begin{array}{r} 80 \\ - 78 \\ \hline \end{array}$$

$$\begin{array}{r} 98 \\ - 54 \\ \hline \end{array}$$

$$\begin{array}{r} 79 \\ - 53 \\ \hline \end{array}$$

$$\begin{array}{r} 62 \\ - 49 \\ \hline \end{array}$$

| | |
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| | | | |
|---|---|---|---|
| | 5 | 2 | 1 |
| - | 4 | 2 | 9 |
| | | | |

| | | |
|--|--|--|
| | | |
| | | |
| | | |

| | | | |
|---|---|---|---|
| | 9 | 8 | 6 |
| - | 8 | 4 | 9 |
| | | | |

| | | |
|--|--|--|
| | | |
| | | |
| | | |

| | | | |
|---|---|---|---|
| | 7 | 4 | 2 |
| - | 3 | 0 | 8 |
| | | | |

| | | |
|--|--|--|
| | | |
| | | |
| | | |

| | | | |
|---|---|---|---|
| | 7 | 6 | 4 |
| - | 2 | 9 | 5 |
| | | | |

| | | |
|--|--|--|
| | | |
| | | |
| | | |

| | | | |
|---|---|---|---|
| | 3 | 4 | 0 |
| - | 2 | 9 | 5 |
| | | | |

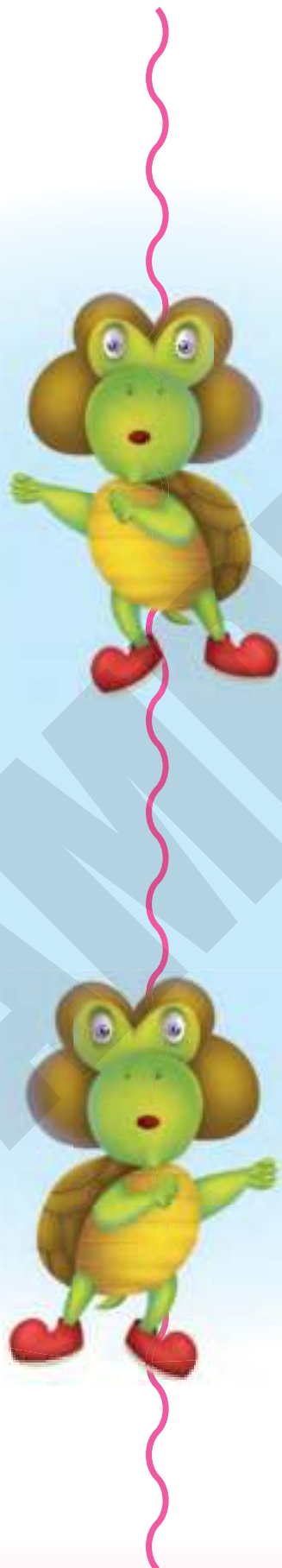
| | | |
|--|--|--|
| | | |
| | | |
| | | |

| | | | |
|---|---|---|---|
| | 6 | 0 | 2 |
| - | 3 | 2 | 8 |
| | | | |

| | | |
|--|--|--|
| | | |
| | | |
| | | |

| | | | |
|---|---|---|---|
| | 9 | 8 | 3 |
| - | 5 | 4 | 6 |
| | | | |

| | | |
|--|--|--|
| | | |
| | | |
| | | |





Think Wisely

Which number am I?

What is the difference of the sum and difference of numbers 234 and 567 ?



Mental Maths

A. Solve:

i. 7 less than 48 = _____

ii. 4 less than 51 = _____

iii. 3 less than 123 = _____

iv. 8 less than 789 = _____

B. Solve mentally. Call out the steps as you do.

i. $43 - 11 =$ _____

ii. $74 - 11 =$ _____

iii. $96 - 11 =$ _____

iv. $61 - 11 =$ _____



REMEMBER




To minus 11, first minus 10. Then minus 1.



Maths Lab Activity

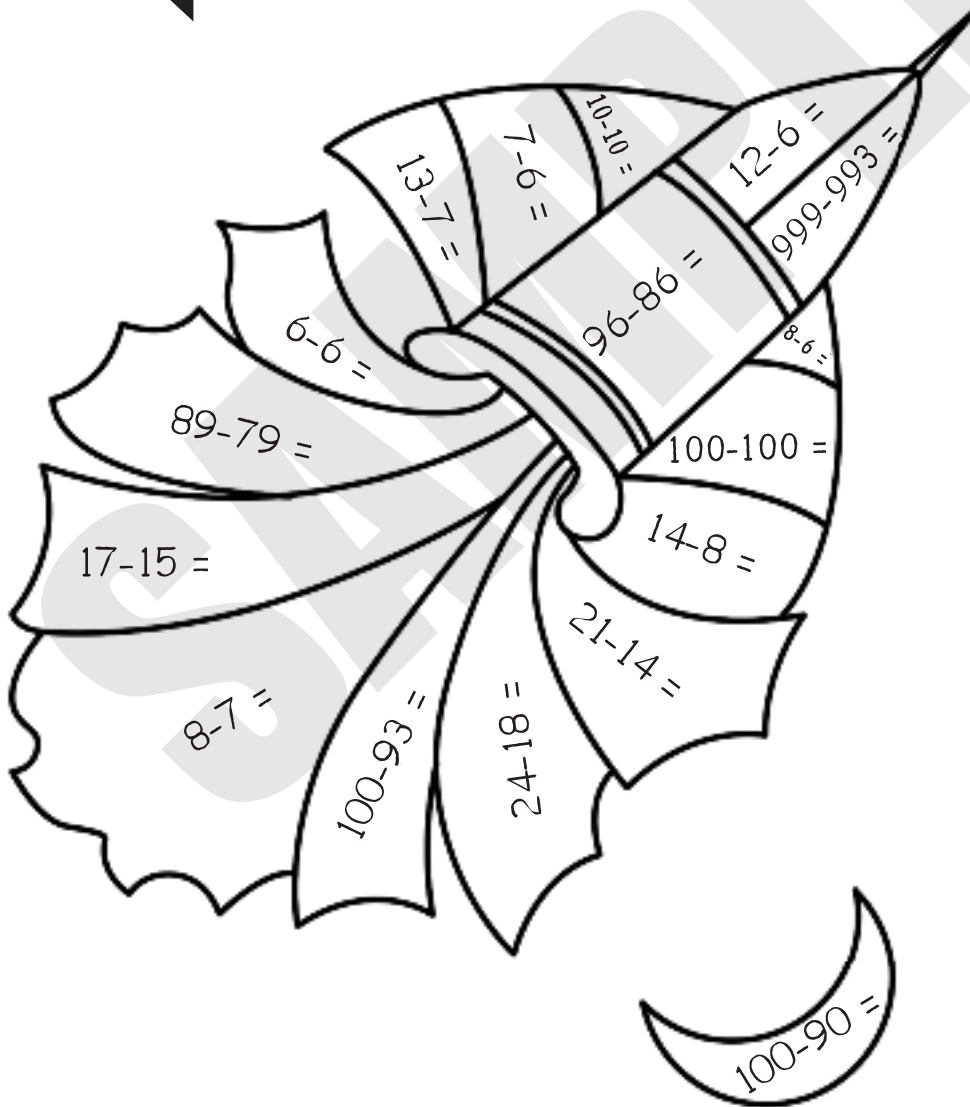
Solve the problems and then colour them. Each answer has a different colour.

Steps:

- 7 
- 6 
- 0 
- 10 
- 2 



Use the grid for help.



5



Multiplication



Learning Objectives

At the end of this lesson, students will be to :

- Multiply upto 2 digit numbers with 1 digit numbers.
- Use carry over in order to multiply.
- Apply the multiplication facts to solve the story sums.



Warm Up

Naira has stood first in the class. Naman, John and Hema each brought a bouquet. Each bouquet has 5 roses.

How many roses are there in all?



5 roses of bouquet

5 roses of bouquet

5 roses of bouquet

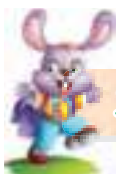
$$5 + 5 + 5 = \underline{\quad} \text{ roses}$$

It could be written as

$$3 \times 5 = 15$$

This method is known as Multiplication





Multiplication Tables In Grid

Oh! Yes



| x | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----|----|----|----|----|----|----|----|----|----|-----|
| 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 2 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 |
| 3 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 |
| 4 | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 |
| 5 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| 6 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 |
| 7 | 7 | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70 |
| 8 | 8 | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | 80 |
| 9 | 9 | 18 | 27 | 36 | 45 | 54 | 63 | 72 | 81 | 90 |
| 10 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |



Teacher's Note:

Elucidate the students that multiplication is addition of similar groups of things repeatedly. This method is an easy and short way to calculate.





Multiplication Facts

If we change the order of the factors, then the answer does not change.

$$5 \times 6 = 30$$

$$6 \times 5 = 30$$

$$4 \times 2 = 8$$

$$2 \times 4 = 8$$

When a number is multiplied by zero (0), then the answer is always zero.

$$0 \times 5 = 0$$

$$4 \times 0 = 0$$

$$6 \times 0 = 0$$

$$0 \times 1 = 0$$



Let's Revise



Multiplication of 1-Digit Number by 1-Digit Number

$$\begin{array}{r} 3 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 0 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} 0 \\ \times 5 \\ \hline \end{array}$$

Facts to Know

When multiplying an even number by 6, the product ends in the same digit as the even number. For example, $6 \times 2 = 12$, $6 \times 4 = 24$, $6 \times 6 = 36$, etc





Multiplication of 2-Digit Numbers By 1-Digit Number (Without Carry Over)

Multiply 24 by 2

Step 1 : Write the numbers in column form.

| | |
|-------|---|
| T | O |
| 2 | 4 |
| x | 2 |
| <hr/> | |

Step 2 : Multiply the ones.

$$4 \times 2 = 8 \text{ ones.}$$

Write 8 in the ONES column.

| | |
|-------|---|
| T | O |
| 2 | 4 |
| x | 2 |
| <hr/> | |
| | 8 |

Step 3 : Multiply the tens.

$$2 \times 2 = 4 \text{ tens}$$

Write 4 in the TENS column.

| | |
|-------|---|
| T | O |
| 2 | 4 |
| x | 2 |
| <hr/> | |
| 4 | 8 |

So, $24 \times 2 = 48$

Factor Factor Product

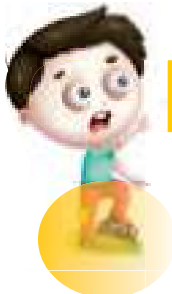
Find the multiplication:

| | |
|-------|---|
| T | O |
| 4 | 8 |
| x | 1 |
| <hr/> | |

| | |
|-------|---|
| T | O |
| 4 | 3 |
| x | 2 |
| <hr/> | |

| | |
|-------|---|
| T | O |
| 4 | 2 |
| x | 2 |
| <hr/> | |

| | |
|-------|---|
| T | O |
| 2 | 3 |
| x | 3 |
| <hr/> | |



Quick Tip

To multiply a number with 9 :
Add +1 to 9 and minus the number with itself, which is to be multiplied.

Example:

$$\begin{aligned} 5 \times 9 &= 9+1 \times 5-5 \\ &= 10 \times 5 - 5 \\ &= 50 - 5 \\ &= 45 \end{aligned}$$



$$\begin{array}{r} \text{T} \quad \text{O} \\ 3 \quad 2 \\ \times \quad 2 \\ \hline \end{array}$$

$$\begin{array}{r} \text{T} \quad \text{O} \\ 2 \quad 8 \\ \times \quad 0 \\ \hline \end{array}$$

$$\begin{array}{r} \text{T} \quad \text{O} \\ 2 \quad 1 \\ \times \quad 4 \\ \hline \end{array}$$

$$\begin{array}{r} \text{T} \quad \text{O} \\ 1 \quad 2 \\ \times \quad 3 \\ \hline \end{array}$$

$$\begin{array}{r} \text{T} \quad \text{O} \\ 5 \quad 1 \\ \times \quad 1 \\ \hline \end{array}$$

$$\begin{array}{r} \text{T} \quad \text{O} \\ 2 \quad 2 \\ \times \quad 2 \\ \hline \end{array}$$

$$\begin{array}{r} \text{T} \quad \text{O} \\ 3 \quad 3 \\ \times \quad 3 \\ \hline \end{array}$$

$$\begin{array}{r} \text{T} \quad \text{O} \\ 1 \quad 1 \\ \times \quad 0 \\ \hline \end{array}$$



Multiplication of 2-Digit Numbers By 1-Digit Number (With Carry Over)

Multiply 28 by 2

Step 1 : Write the numbers in column form.

$$\begin{array}{r} \text{T} \quad \text{O} \\ 2 \quad 8 \\ \times \quad 2 \\ \hline \end{array}$$

Step 2 : Multiply the ones.

$$8 \times 2 = 16 \text{ ones.}$$

Write 6 in the ONES column and carry 1 to the TENS column.

$$\begin{array}{r} \text{T} \quad \text{O} \\ \textcircled{1} \\ 2 \quad 8 \\ \times \quad 2 \\ \hline 6 \end{array}$$

Step 3 : Multiply the tens.

$$2 \times 2 = 4 \text{ ones}$$

$$4 + 1 \text{ (carry over)}$$

$$= 5 \text{ tens}$$

Write 5 in the TENS column.

$$\begin{array}{r} \text{T} \quad \text{O} \\ \textcircled{1} \\ \textcircled{2} \quad 8 \\ \times \quad 2 \\ \hline 5 \quad 6 \end{array}$$

So, $28 \times 2 = 56$

Factor Factor Product

Multiply 34 by 4

Step 1 : Write the numbers in column form.

| T | O |
|-------|---|
| 3 | 4 |
| x | 4 |
| <hr/> | |
| | |

Step 2 : Multiply the ones.

$$4 \times 4 = 16 \text{ Ones}$$

Write 6 in the ONES column and carry 1 to the TENS column.

| T | O |
|-------|---|
| 1 | |
| 3 | 4 |
| x | 4 |
| <hr/> | |
| 6 | |

Step 3 : Multiply the tens.

$$3 \times 4 = 12 \text{ tens}$$

$$12 + 1 \text{ (carry over)}$$

$$= 13 \text{ tens}$$

Write 3 in the TENS column and 1 in HUNDREDS column.

| T | O |
|-------|---|
| 1 | |
| 3 | 4 |
| x | 4 |
| <hr/> | |
| 13 | 6 |

So, $34 \times 4 = 136$

Factor Factor Product

Find the multiplication:

| T | O |
|-------|---|
| 1 | 6 |
| x | 7 |
| <hr/> | |

| T | O |
|-------|---|
| 2 | 5 |
| x | 2 |
| <hr/> | |

| T | O |
|-------|---|
| 1 | 6 |
| x | 6 |
| <hr/> | |

| T | O |
|-------|---|
| 2 | 7 |
| x | 2 |
| <hr/> | |

| T | O |
|-------|---|
| 1 | 7 |
| x | 3 |
| <hr/> | |

| T | O |
|-------|---|
| 2 | 4 |
| x | 4 |
| <hr/> | |

| H | T | O |
|-------|---|---|
| 7 | 9 | |
| x | 9 | |
| <hr/> | | |

| H | T | O |
|-------|---|---|
| 6 | 4 | |
| x | 4 | |
| <hr/> | | |

| H | T | O |
|-------|---|---|
| 5 | 9 | |
| x | 8 | |
| <hr/> | | |

Fill in the blanks:

$2 \times 3 = \square \times 2$

$5 \times \square = 5$

$6 \times \square = 0$

$\square \times 4 = 4 \times 8$

$\square \times 2 = 2$

$\square \times 1 = 1$



$9 \times 0 = \square$

$7 \times 1 = \square$

$4 \times 3 = \square$

$5 \times 2 = \square$

$7 \times 3 = \square$

$2 \times 0 = \square$



Word Problems

A cat jumps 5 stairs at a time. How many stairs does it climb in 7 jumps?



There are 7 days in a week. How many days are there in 21 weeks?

| January | | | | | | |
|---------|----|----|----|----|----|----|
| S | M | T | W | T | F | S |
| | | | 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 | |

There are 39 apples on a tree. How many apples are there on 5 such trees?



One shirt has 5 buttons. How many buttons are there on 12 shirts?







Think Wisely

- Write two numbers whose product is equal to their sum. _____
- Write two numbers such that their product is 1. _____



Mental Maths

A. Tick the correct answer:

a. $99 \times \square = 0$

i. 100

ii. 0

iii. 10

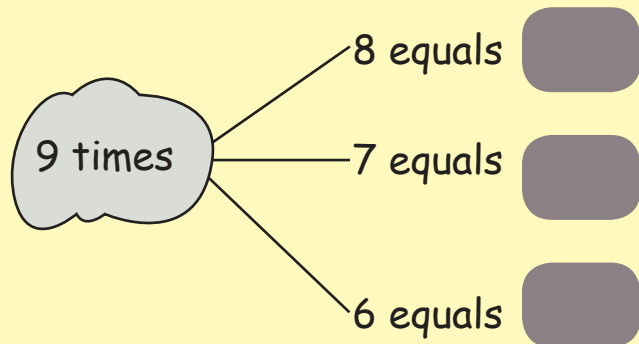
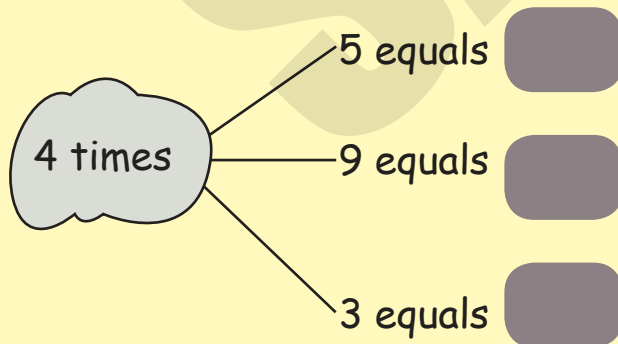
b. What is '50 times 6'?

i. 300

ii. 35

iii. 350

B. Fill in the boxes



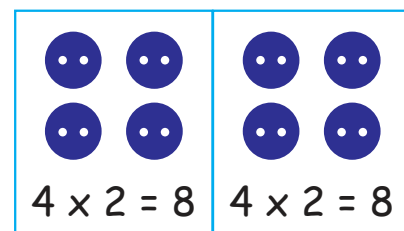
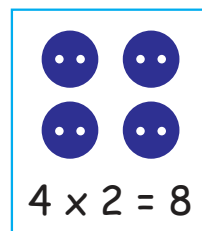
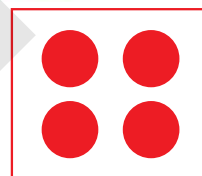
Maths Lab Activity

Materials Required: Plain sheets of paper (A-4size), bangles, fevicol, sticker bindis and paper slips with multiplication facts written on them.



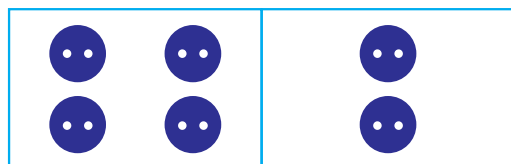
Steps:

1. Ask pupils to work in pairs.
2. To show $4 \times 2 = 2 \times 4$
3. One pupil will paste 4 bangles on the paper with fevicol.
4. The pupil will then stick 2 bindis in each bangle to make multiplication fact.
5. Now, the pupil will write the multiplication sentence for the number of bindis.
6. The other pupil will paste 2 bangles on the paper with fevicol and stick 4 bindis in each bangle.
7. Now, he/she will also write the multiplication sentence for number of bindis.



But the pupils will find that answer in both the cases is same.

Record the activity:



$$4 \times 2 = 8$$

$$2 \times 4 = 8$$

Therefore, $4 \times 2 = 2 \times 4$.

Try This:

- (a) Show that $2 \times 3 = 3 \times 2$
- (b) Show that $5 \times 4 = 4 \times 5$



Learning Objectives

At the end of this lesson, students will be able to:

- Apply division facts to divide.
- Identify the relationship between Multiplication and Division.
- Divide the numbers using a long division method.
- Implement division facts to solve the story sums.



Warm Up

There are 12 eggs. They need to be placed in 3 trays.



How many eggs are there? _____

How many trays are there? _____

How many eggs are there in each tray? _____

Thus, we can see that 12 eggs are shared equally in 3 trays. We call it 'division'.



Facts to Know

The oblique bar used as a sign in the division process was introduced by De Morgan in 1845.





5 umbrellas among 5 children



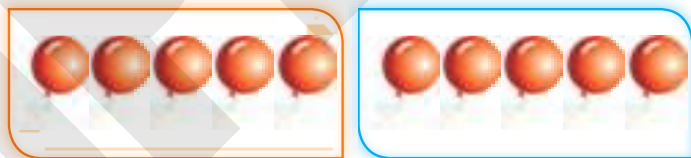
10 flowers among 2 pots



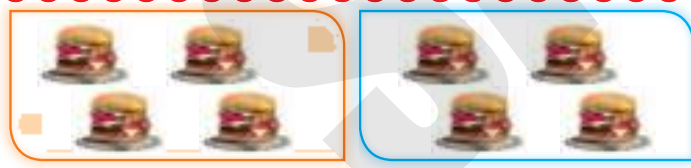
Write Division Fact for each of the following



$$8 \div 4 = 2$$



$$\square \div \square = \square$$



$$\square \div \square = \square$$



$$\square \div \square = \square$$



$$\square \div \square = \square$$

$$\square \div \square = \square$$

$$\square \div \square = \square$$

$$\square \div \square = \square$$


Make Groups Based on the Division Fact

$$6 \div 3 = 2$$

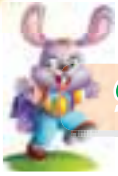
$$14 \div 2 = \square$$

$$18 \div 2 = \square$$

$$28 \div 4 = \square$$

$$12 \div 6 = \square$$

$$25 \div 5 = \square$$

Relationship Between Multiplication and Division

$$5 \times 2 = 10$$

or

$$2 \times 5 = 10$$

Division is the opposite of multiplication.

$$10 \div 2 = 5$$

or

$$10 \div 5 = 2$$



Multiplication Facts

Any number divided by 1 (one) is always equal to the number itself.

$$5 \div 1 = 5$$

$$7 \div 1 = 7$$

$$4 \div 1 = 4$$

$$10 \div 1 = 10$$

Any number divided by the number itself is always equal to 1.

$$2 \div 2 = 1$$

$$3 \div 3 = 1$$

$$6 \div 6 = 1$$

$$8 \div 8 = 1$$

Zero divided by any number is always equal to zero.

$$0 \div 1 = 0$$

$$0 \div 2 = 0$$

$$0 \div 5 = 0$$

$$0 \times 10 = 0$$

REMEMBER Division by zero is not possible.



Write two division facts for each of the following multiplication facts:

| | | |
|-------------------|-----------------|-----------------|
| $4 \times 6 = 24$ | $24 \div 4 = 6$ | $24 \div 6 = 4$ |
| $9 \times 3 = 21$ | | |
| $7 \times 6 = 42$ | | |
| $5 \times 9 = 45$ | | |
| $3 \times 9 = 27$ | | |
| $4 \times 2 = 8$ | | |
| $5 \times 3 = 15$ | | |
| $4 \times 9 = 36$ | | |
| $8 \times 9 = 72$ | | |
| $3 \times 4 = 12$ | | |
| $8 \times 5 = 40$ | | |
| $6 \times 5 = 30$ | | |
| $2 \times 5 = 10$ | | |
| $7 \times 2 = 14$ | | |



Divide the following using Multiplication Tables



$$20 \div 5 = 4$$



$$6 \div 6 = \quad$$



$$16 \div 4 = \quad$$



$$15 \div 3 = \quad$$



$$20 \div 2 = \quad$$



Quick Tip

Note that multiplication is opposite of division. Also, division is the opposite of multiplication. Therefore, multiplication tables can be used to understand division.





$4 \div 2 = \quad$



$10 \div 5 = \quad$



$16 \div 2 = \quad$



$63 \div 7 = \quad$



$70 \div 7 = \quad$



$24 \div 8 = \quad$



$28 \div 4 = \quad$



$36 \div 6 = \quad$



$60 \div 6 = \quad$



$40 \div 4 = \quad$



$25 \div 5 = \quad$



$35 \div 7 = \quad$



$36 \div 6 = \quad$



$64 \div 8 = \quad$



$18 \div 9 = \quad$



Long Division Method

In long division method,

$32 \div 8 = 4$

Dividend

Divisor

Quotient

can be written as

$$\begin{array}{r} 4 \leftarrow \text{Quotient} \\ 8 \overline{) 32} \\ \text{Divisor} \quad \text{Dividend} \end{array}$$



Teacher's Note:

Tell the children that a number cannot be divided by a number larger than it.

$$9 \overline{) 72}$$

Divisor :

Quotient :

Dividend :

$$6 \overline{) 18}$$

Divisor :

Quotient :

Dividend :

$$6 \overline{) 24}$$

Divisor :

Quotient :

Dividend :

$$7 \overline{) 63}$$

Divisor :

Quotient :

Dividend :

$$5 \overline{) 45}$$

Divisor :

Quotient :

Dividend :

$$3 \overline{) 27}$$

Divisor :

Quotient :

Dividend :



Checking Division

$$\text{Divisor} \times \text{Quotient} = \text{Dividend}$$

$$\begin{array}{r} 9 \\ 10 \overline{) 90} \\ \underline{90} \\ 0 \end{array}$$

Divisor → ← Quotient
 ← Dividend

Check : $10 \times 9 = 90$



Find the division. Also check the answer.

$$\begin{array}{r} 8 \overline{) 24} \\ \underline{\quad} \\ \underline{\quad} \end{array}$$

Check :

$$\begin{array}{r} 7 \overline{) 42} \\ \underline{\quad} \\ \underline{\quad} \end{array}$$

Check :

$$\begin{array}{r} 5 \overline{) 25} \\ \underline{\quad} \\ \underline{\quad} \end{array}$$

Check :

$$\begin{array}{r} 9 \overline{) 81} \\ \underline{\quad} \\ \underline{\quad} \end{array}$$

Check :

$$\begin{array}{r} 3 \overline{) 15} \\ \underline{\quad} \\ \underline{\quad} \end{array}$$

Check :

$$\begin{array}{r} 4 \overline{) 28} \\ \underline{\quad} \\ \underline{\quad} \end{array}$$

Check :



Word Problems

30 toffees are equally divided among 6 girls. How many toffees will each girl get?



There are 25 bananas in 5 bunches. Each bunch contains the equal number of bananas. How many bananas are there in each bunch?



48 flowers have to be put in 8 pots. How many flowers should be put in each pot?



36 toys are divided among 6 girls. How many toys does each girl will get?



3 girls share 27 balloons equally. How many balloons will each girl get?



Think Wisely

Shubham is thinking of a number, if he divides it by 7 then the quotient is 2 more than 7. What number is he thinking of?





Mental Maths

A. Write the multiplication facts for the following division problems. First one has been done for you.

1. $10 \div 5 = 2$ $2 * 5 = 10$ and $5 * 2 = 10$

2. $18 \div 6 = 3$ _____ and _____

3. $48 \div 8 =$ _____ and _____

B. How many 2's are there in 18 ? _____

C. If 30 chocolates are distributed among 6 friends, then each will get _____ books

D. Solve the following word problems:

a) There are 14 toffees in a packet. If the toffees are distributed among 7 children then how much each one will get?



b) If a person distribute 10 bags among 2 people then how much each one will get?





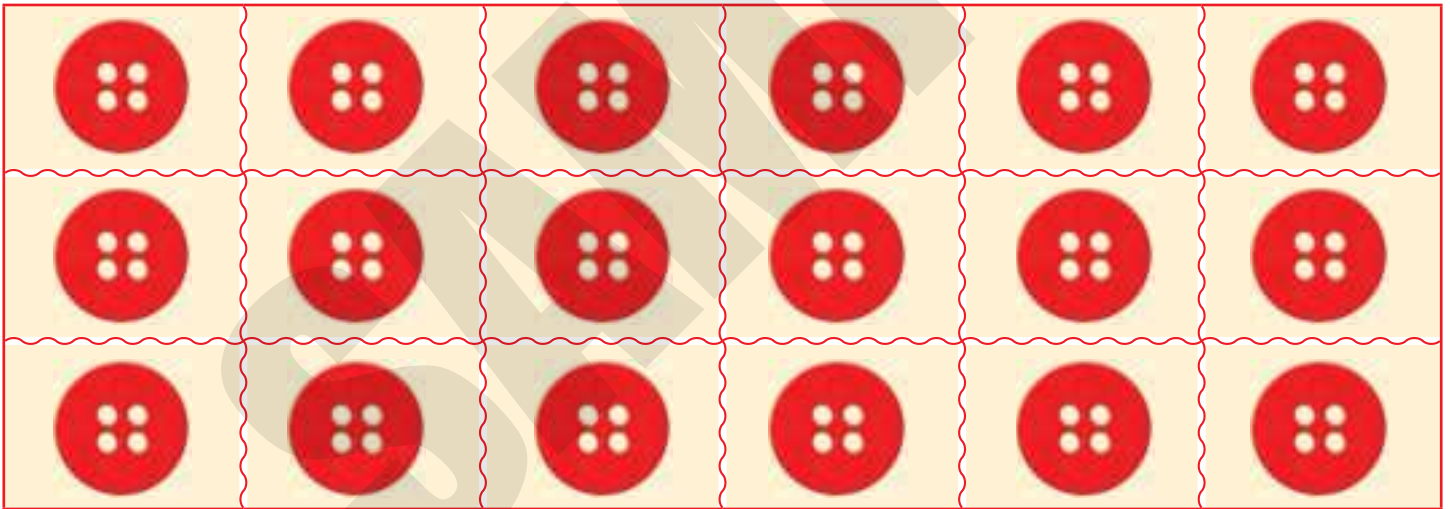
Maths Lab Activity

Materials required: Buttons and blank flash cards.

Steps:

1. Make groups of students.
2. Give empty flash cards and the buttons to the first group of students.
3. Ask them to write a division fact of their choice and represent it using the objects.
4. Discuss group's representation with the class.
5. Similarly, repeat the same with the other groups.

Example: $18 \div 6$



Therefore, $18 \div 6 = 3$





Learning Objectives

At the end of this lesson, students will be able to :

1. Know about the half, one - third and one - fourth.
2. Write a fraction according to the picture.



Warm Up

Material Required: One piece of newspaper

1. Each student will need one piece of newspaper. Students place the piece of newspaper out as a 'whole piece'.
2. The teacher plays some fun dancing music so that the students can dance along on their piece of newspaper. When the music stops, the students must pick up their piece of paper and fold it in half.
3. They then start dancing on half of the newspaper. Again, the music stops and they fold the piece of paper so that they are dancing on only one quarter. Finally, they fold the newspaper so that they are only dancing on one eighth of the paper.
4. They can then unfold their piece of paper to see the folds in the paper. A great discussion can take place after this game about the different fractions they created during this activity.

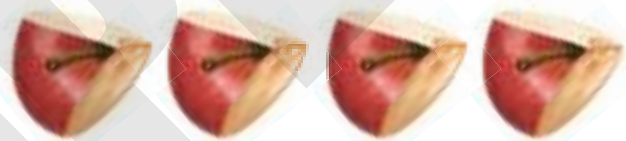
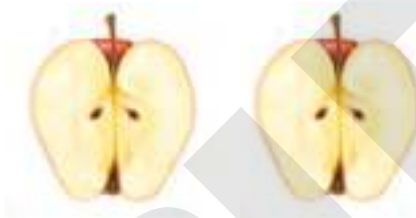


Fraction means part of one whole.

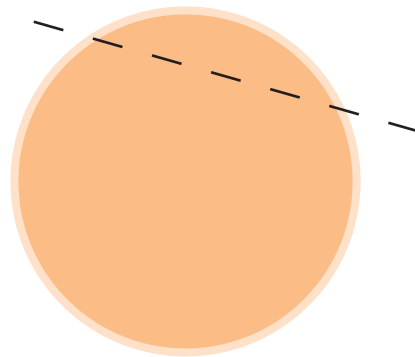
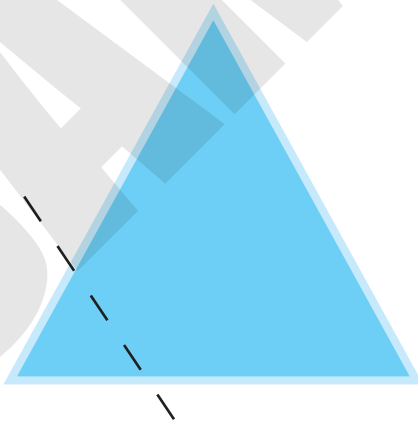
When an apple is cut into parts, each part is a fraction of whole apple.

One-half $\left(\frac{1}{2}\right)$ part is the **equal part**.

One-fourth $\left(\frac{1}{4}\right)$ part is known as **quarter part**.



Unequal parts



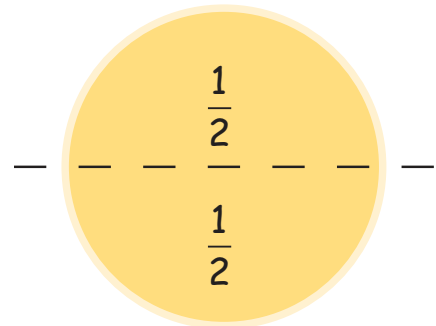
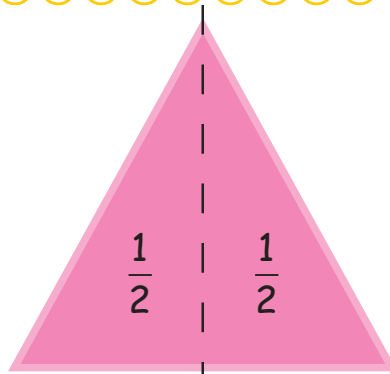
Facts to Know

Fractions with the same denominator are called 'like fractions.' $\frac{1}{5}, \frac{3}{5}, \frac{4}{5}$ are called like fractions.

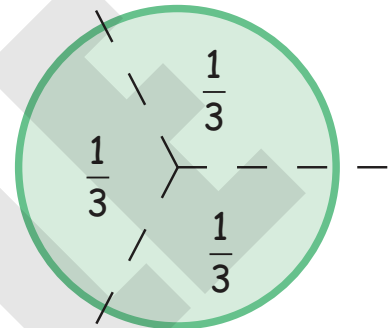
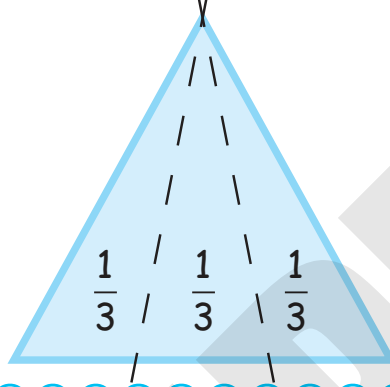
Fractions with 1 in the numerator are called unit fractions. $\frac{1}{7}, \frac{1}{13}, \frac{1}{19}$ are unit fractions.



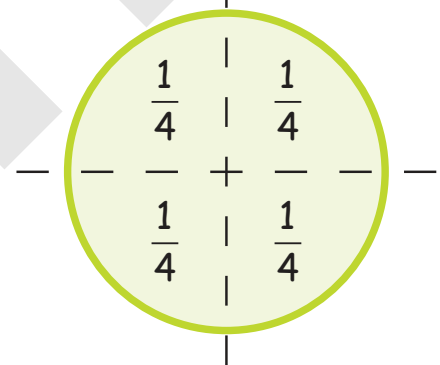
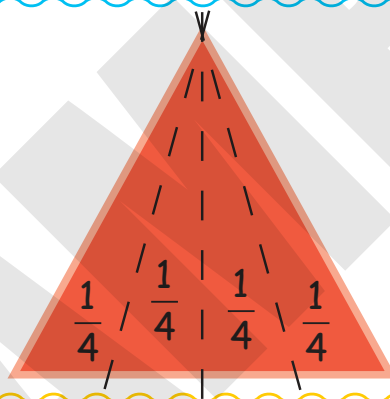
One-half $\left(\frac{1}{2}\right)$ part



One-third $\left(\frac{1}{3}\right)$ part



One-fourth $\left(\frac{1}{4}\right)$ part

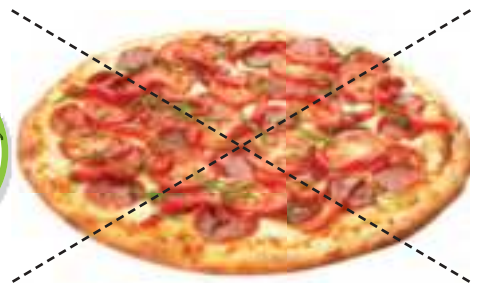
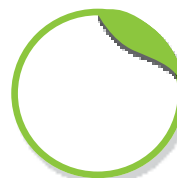
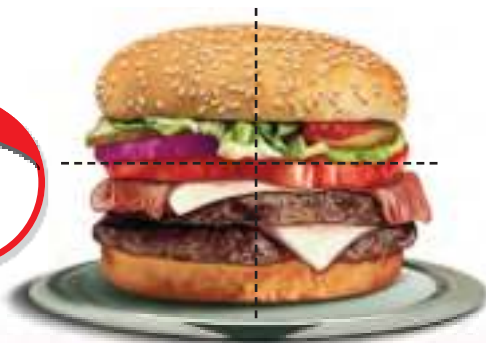


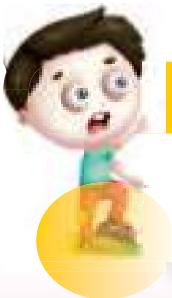
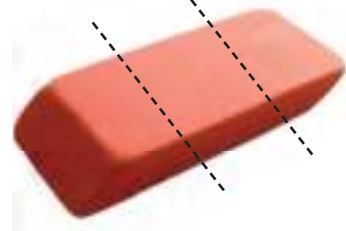
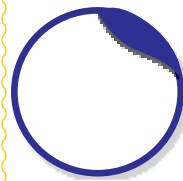
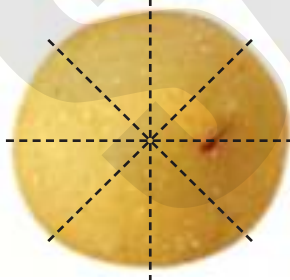
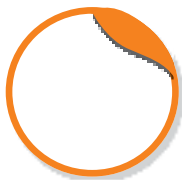
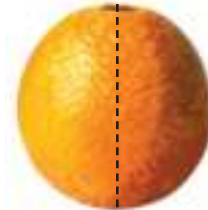
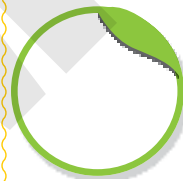
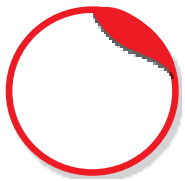
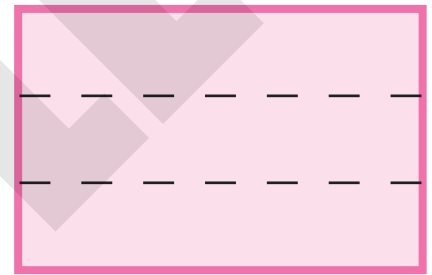
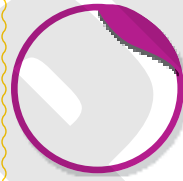
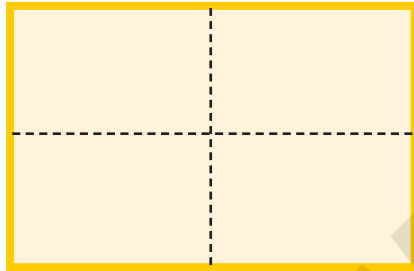
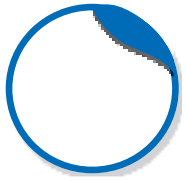
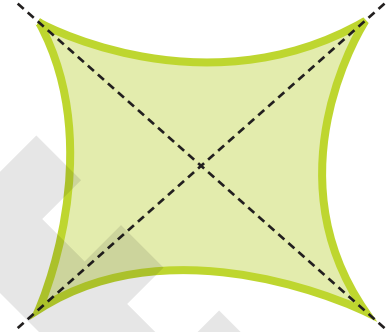
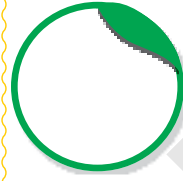
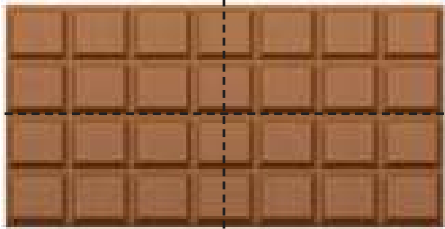
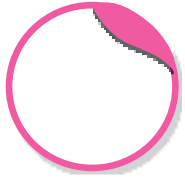
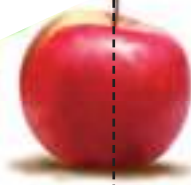
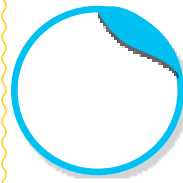
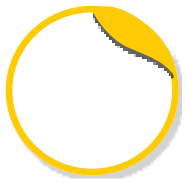
Teacher's

Note:

We can talk about a fraction(part) of a whole only when the whole is divided into equal parts.

Write fractions for each of the following:





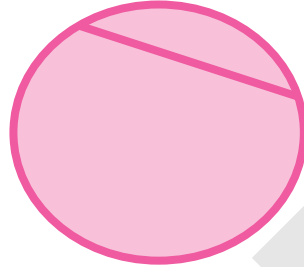
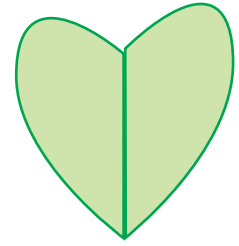
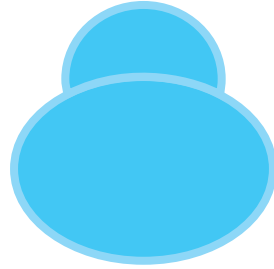
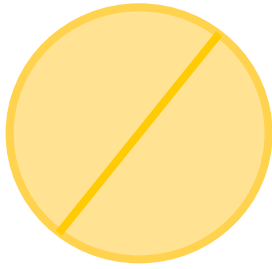
Quick Tip

Two halves together make a whole. $\frac{1}{2} + \frac{1}{2} = 1$

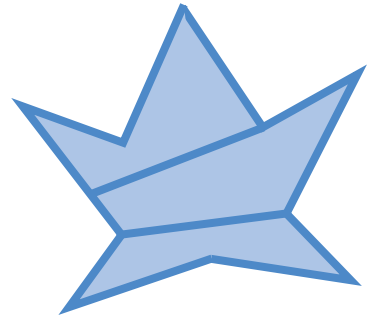
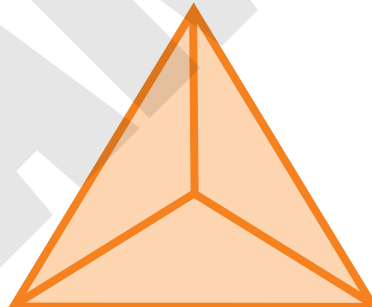
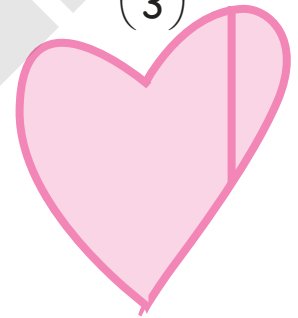
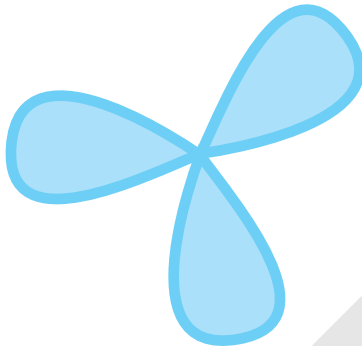
Four one - fourths make a whole. $\frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} = 1$



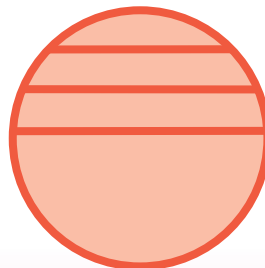
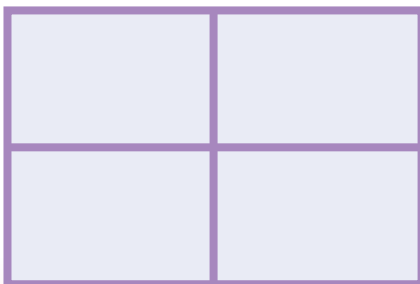
Tick (✓) the objects which are divided into equal halves $\left(\frac{1}{2}\right)$:

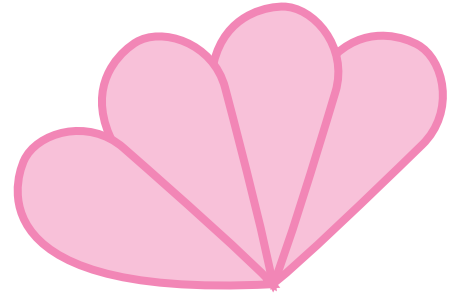
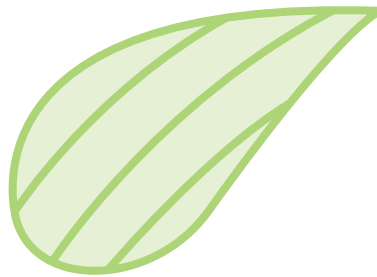
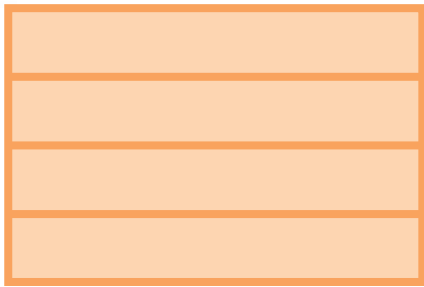


Tick (✓) the objects which are divided into one-third $\left(\frac{1}{3}\right)$ part:



Tick (✓) the objects which are divided into quarter $\left(\frac{1}{4}\right)$ part:





Think Wisely

Shriya has an apple. She has to share it with her 2 sisters. She decided to keep half for herself. How much will each of the sisters get, if she divides the remaining equally among them?



Mental Maths

1. Tick the correct answer:

a. One out of 3 equal parts of a whole is _____

i. $1/2$

ii. $1/3$

iii. $1/4$

b. How many one fourths make a whole?

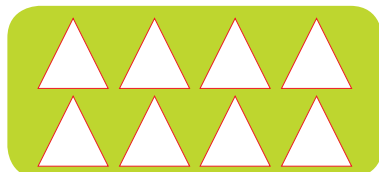
i. 1

ii. 4

iii. 2

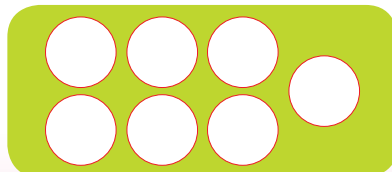
2. Colour to show the given fraction.

a.



$6/8$

b.



$3/7$

Material required : Flag of Italy

Steps:

1. This is a flag.
2. It has 3 equal parts - green, white and red.

What fraction of the flag is

- A. white in colour? _____
- B. green and red in colour? _____

Now, create your own flag using the given instructions.

Starting from the top.

- a. $\frac{1}{3}$ of the flag is Saffron.
- b. $\frac{1}{3}$ of the flag is White
- c. $\frac{1}{3}$ of the flag is green.

Name the country it belongs to . _____





Learning Objectives

At the end of this lesson, students will be able to:

- Recognize Indian currency
- Write Rupees and Paise
- Add and subtract money



Warm Up

Take a look at the stuff below. They bear price tags.



Rs. 200



Rs. 120



Rs. 500



Rs. 300

Fill in the blanks:

1. The cost of the school bag is _____ rupees.
2. If you want to buy a watch and a belt, you need rupees _____.
3. You will need rupees 120 to buy a _____.



We need money to buy things from the market.



Indian currency (or money) is represented in the form of **Rupees** and **Paise**.

We write ₹ for rupee (or rupees) and p for paise.

Coins

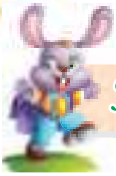
Not in use now-these days



Notes

1 Rupee = 100 paise





How to Write Rupees and Paise Together?

We use point (.) to separate rupees and paise.



We write 5 Rs 75 paise as : ₹ 5.75



Write in Figures

Eighty five rupees and sixty paise

₹ 85.60

Twenty rupees and seventy five paise

Seven rupees and forty paise

Three hundred rupees and twenty five paise

Sixty two rupees and ninety paise

Fifty rupees



Quick Tip

When we put a dot we need not write paise. It is understood.



Write in Words

₹ 60.55

Sixty rupees and fifty five paise

₹ 8.40

₹ 50.00

₹ 260.45

₹ 70.90

₹ 68.25

₹ 92.50

REMEMBER



Two 50 p coins = ₹ 1



Four 25 p coins = ₹ 1



Five 20 p coins = ₹ 1





























Ten 10 p coins = ₹ 1














Twenty 5 p coins = ₹ 1



 +  = 
 +  = 
 +  +  +  +  = 
 +  = 
 +  +  +  = 
 +  = 
 +  = 



Addition Using Money

 +  +  = ₹ 30.50
 +  +  +  =
 +  +  +  =



Teacher's Note:

Tell the students that always count the money from the biggest amount to the smallest.





+



=



+



+



=



+



+



+



=



Subtraction Using Money



-



= ₹ 18



-



=



-



=



-



=



-



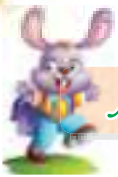
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Facts to Know

Indian currency notes are not actually made of paper. Instead, they are made from a pulp that contains cotton, balsam, special dyes and gelatin. These ingredients help to increase the life of the notes by enhancing their strength.





Addition of Rupees And Paise

Add: ₹ 26.20 and ₹ 45.35

Step 1 : Write the numbers in correct column.

| ₹ | P |
|-------|-------|
| 26 | 20 |
| + | 45.35 |
| <hr/> | |

Step 2 : Add the numbers in paise (P) column.

| ₹ | P |
|-------|-------|
| 26 | 20 |
| + | 45.35 |
| <hr/> | |
| | 55 |

Step 3 : Add the numbers in rupees (₹) column.

| ₹ | P |
|-------|-------|
| 26 | 20 |
| + | 45.35 |
| <hr/> | |
| 71 | 55 |

So, ₹ 26.20 + ₹ 45.35 = ₹ 71.55



Add The Money

| ₹ | P |
|-------|------|
| 7 | 50 |
| + | 8.25 |
| <hr/> | |

| ₹ | P |
|-------|-------|
| 85 | 62 |
| + | 32.75 |
| <hr/> | |

| ₹ | P |
|-------|-------|
| 54 | 50 |
| + | 22.50 |
| <hr/> | |

| ₹ | P |
|-------|-------|
| 72 | 25 |
| + | 83.25 |
| <hr/> | |

| ₹ | P |
|-------|-------|
| 23 | 50 |
| + | 60.00 |
| <hr/> | |

| ₹ | P |
|-------|-------|
| 83 | 00 |
| + | 22.00 |
| <hr/> | |

| ₹ | P |
|-------|-------|
| 20 | 50 |
| + | 10.25 |
| <hr/> | |

| ₹ | P |
|-------|-------|
| 50 | 50 |
| + | 25.25 |
| <hr/> | |



Subtraction of Rupees And Paise

Subtract: ₹ 60.50 from ₹ 82.70

Step 1 : Write the numbers in correct column.

| ₹ | P |
|---------|---|
| 82.70 | |
| - 60.50 | |
| <hr/> | |

Step 2 : Subtract the numbers in paise (P) column.

| ₹ | P |
|---------|----|
| 82.70 | |
| - 60.50 | |
| <hr/> | |
| | 20 |

Step 3 : Subtract the numbers in rupees (₹) column.

| ₹ | P |
|---------|---|
| 82.70 | |
| - 60.50 | |
| <hr/> | |
| 22.20 | |

So, ₹ 82.70 - ₹ 60.50 = ₹ 22.20

Subtract The Money

| ₹ | P |
|---------|---|
| 80.60 | |
| - 12.50 | |
| <hr/> | |

| ₹ | P |
|---------|---|
| 54.25 | |
| - 22.20 | |
| <hr/> | |

| ₹ | P |
|---------|---|
| 72.00 | |
| - 50.00 | |
| <hr/> | |

| ₹ | P |
|---------|---|
| 25.00 | |
| - 20.50 | |
| <hr/> | |

| ₹ | P |
|---------|---|
| 66.00 | |
| - 32.25 | |
| <hr/> | |

| ₹ | P |
|---------|---|
| 40.50 | |
| - 28.50 | |
| <hr/> | |

| ₹ | P |
|---------|---|
| 22.50 | |
| - 05.50 | |
| <hr/> | |

| ₹ | P |
|---------|---|
| 83.20 | |
| - 52.60 | |
| <hr/> | |

Fill in the blanks:



$$+ = \text{₹ } \dots$$



$$+ = \dots \text{ P}$$



$$+ = \dots \text{ P}$$



$$+ = \text{₹ } \dots$$



$$+ = \text{₹ } \dots$$



Word Problems

Rajat's father gave him ₹ 20.00. His mother gave him ₹ 10.00. How much money did he have now?



My father gave me ₹ 500 for the picnic. I spent ₹ 320. How much money is left with me?



On Diwali, Sona spent ₹ 249 on sweets, ₹ 500 on crackers and ₹ 50 on candles. How much money did she spend on Diwali?





Gungun has ₹ 529 and her sister has ₹ 449. How much more money, Gungun has from her sister?



Somiya bought a chocolate for ₹ 22. She paid ₹ 50 note to the shopkeeper. How much money did she get back?



Use the least number of notes and coins to do shopping:



₹ 24 ₹ 20 ₹ 2 ₹ 2



₹ 30 ₹ ₹



₹ 175 ₹ ₹ ₹ ₹



₹ 48 ₹ ₹ ₹ ₹ ₹



₹ 166 ₹ ₹ ₹ ₹ ₹





Think Wisely

Sam and Pam have the following :

Sam: 5 notes of rs. 10, 2 notes of rs. 20, 3 coins of rs. 2

Pam: 4 notes of 20 , 3 coins of rs 2, 8 notes of rs 10.

Who has more money and by how much?



Mental Maths

A. Fill in the blanks

1. There are _____ coins of ten rupees in Rs. 100.
2. _____ notes of fifty rupees will make Rs. 100.
3. _____ paise = 1 rupees.
4. There are _____ coins of ten rupees in Rs. 100.
5. 5 coins of two rupees will make _____.

B. Write the total amount.

1. Rs 5 + Rs 1 + Rs 5 = _____
2. Rs 10 + Rs 20 + Rs 5 + 50 paise = _____
3. Rs 10 + Rs 2 + Rs 5+ 50 paise = _____
4. Rs 100 + Rs 50 + Rs 200 paise = _____
5. Rs 100 + Rs 10 + Rs 20 paise = _____
6. Rs 500 + Rs 2 + Rs 20 + Rs 1 paise = _____
7. Rs 500 + Rs 1 + Rs 50 paise = _____



Maths Lab Activity

Materials required: Various combinations for Rs. 50.

1. Ask the students to work in groups.
2. Every group should have the following notes.
 - a. 2 notes of Rs. 20
 - b. 3 coins of Rs. 5
 - c. 2 notes of Rs. 10
 - d. 5 coins of Rs. 2
 - e. 5 coins of Rs 1
3. Find the different combinations to make Rs. 50.
4. Write your combinations in the table given below:

| S.No | Combinations | Amount |
|------|--------------|--------|
| 1 | | Rs 50 |
| 2 | | Rs 50 |
| 3 | | Rs 50 |
| 4 | | Rs 50 |
| 5 | | Rs 50 |





Learning Objectives

At the end of this lesson, students will be able to:

1. Measure the length of an object using body parts, different objects and a ruler.
2. Add and subtract the lengths, weights and capacities.
3. Know about the standard unit for measuring length, weights and capacities.
4. Apply the skills of measurements to solve the story sums.



Warm Up

Pick the correct words from the clouds and fill in the blanks.



Shorter Longer

The neck of a giraffe is _____ than the dog's neck.



Heavier lighter

The rabbit is _____ than the lion and the lion is _____ than the rabbit.



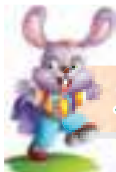
more less

The bucket holds _____ water than the tub. The tub holds _____ water than the bucket.

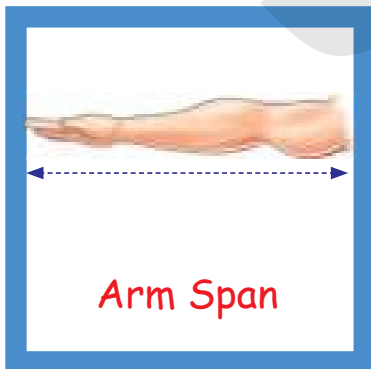
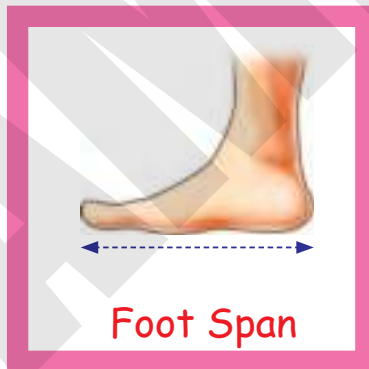
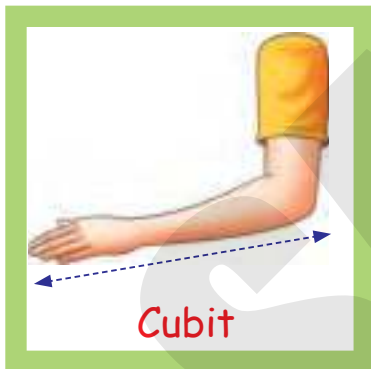


Let's revise

LENGTH



Measuring Length Using Body Parts



If two persons measure the length of an object using body parts, then they get different answers.





Measuring Length Using Objects



If two persons measure the length of an object by using the same object, then they get the same answer.



Measuring Length Using Standard Units

Standard unit means the units which are widely used.

Standard units of length are **centimetre** (*cm*), **metre** (*m*) and **kilometre** (*km*).



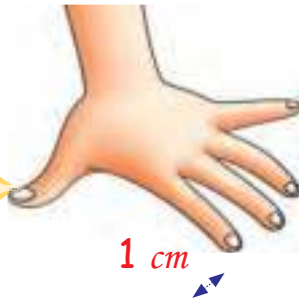
Teacher's Note:

- Make two dots on board at some distance. Then draw a line to join dots.
- Now, by writing on board, tell students:
- "Distance between two points is called length".



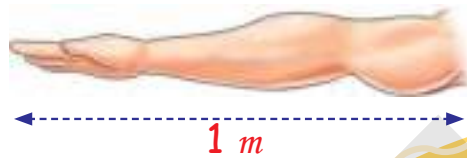
1 metre = 100 centimetre

Centimetre is used to measure small things.



1 cm is about the width of your index finger.

Metre is used to measure longer things.

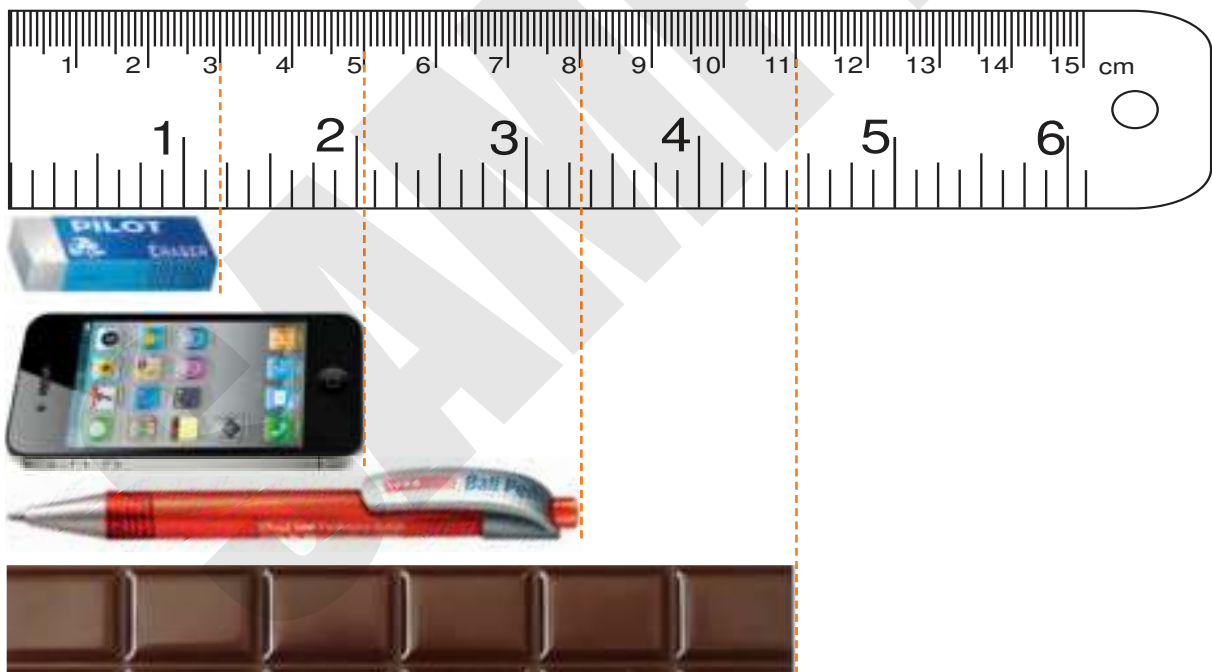


1 m is about the width of your arm span.



Measuring The Length Of An Object Using A Ruler

Look at the ruler given below. Its length is 15 cm.



Quick Tip

It is difficult to use cm to measure the length of a wall. We use metres (m) to measure longer lengths.



Write the length of the objects shown:

Eraser



=

3 cm

Mobile



=

..... cm

Pen



=

..... cm

Chocolate



=

..... cm

Remote Control



=

..... cm



Bigger unit of length is kilometre (km).



Kilometre is used to measure long distances.

$$1 \text{ km} = 1000 \text{ m}$$

Addition Of Lengths

Just like other numbers, we add m and cm



First add cm then m

| | | |
|-------|------|------|
| | m | cm |
| | 1 | 1 |
| | 42 | 69 |
| + | 72 | 83 |
| <hr/> | | |
| | 115m | 52cm |

| | | |
|-------|----|----|
| | m | cm |
| | 63 | 49 |
| + | 82 | 53 |
| <hr/> | | |
| <hr/> | | |

| | |
|-------|----|
| | m |
| | 22 |
| + | 68 |
| <hr/> | |
| <hr/> | |

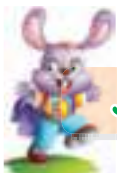
| | |
|-------|----|
| | cm |
| | 36 |
| + | 85 |
| <hr/> | |
| <hr/> | |

| | | | |
|-------|----------|--|-----------|
| | <i>m</i> | | <i>cm</i> |
| | 5 6 | | 4 2 |
| + | 6 5 | | 9 4 |
| + | 8 9 | | 1 0 |
| <hr/> | | | |

| | | | |
|-------|----------|--|-----------|
| | <i>m</i> | | <i>cm</i> |
| | 9 8 | | 3 4 |
| + | 2 2 | | 2 1 |
| + | 1 2 | | 4 2 |
| <hr/> | | | |

| | |
|-------|----------|
| | <i>m</i> |
| | 6 3 |
| | 4 3 |
| + | 2 9 |
| <hr/> | |

| | |
|-------|-----------|
| | <i>cm</i> |
| | 4 2 |
| | 5 5 |
| + | 6 6 |
| <hr/> | |



Subtraction Of Lengths

Just like other numbers, we subtract *m* and *cm*.



First subtract *cm* then *m*.

| | | | |
|-------|--------------|--|---------------|
| | <i>m</i> | | <i>cm</i> |
| | 7 3 | | 8 9 |
| - | 4 2 | | 6 1 |
| <hr/> | | | |
| | 3 1 <i>m</i> | | 2 8 <i>cm</i> |

| | | | |
|-------|----------|--|-----------|
| | <i>m</i> | | <i>cm</i> |
| | 8 6 | | 4 2 |
| - | 2 9 | | 5 3 |
| <hr/> | | | |

| | | | |
|-------|----------|--|-----------|
| | <i>m</i> | | <i>cm</i> |
| | 2 2 | | 5 5 |
| - | 1 0 | | 1 2 |
| <hr/> | | | |

| | | | |
|-------|----------|--|-----------|
| | <i>m</i> | | <i>cm</i> |
| | 9 6 | | 9 2 |
| - | 8 3 | | 4 1 |
| <hr/> | | | |

| | |
|-------|----------|
| | <i>m</i> |
| | 7 8 |
| - | 5 6 |
| <hr/> | |

| | |
|-------|----------|
| | <i>m</i> |
| | 1 6 5 |
| - | 1 6 0 |
| <hr/> | |

| | |
|-------|-----------|
| | <i>cm</i> |
| | 9 2 1 |
| - | 6 4 2 |
| <hr/> | |

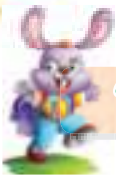
| | |
|-------|-----------|
| | <i>cm</i> |
| | 8 0 |
| - | 3 5 |
| <hr/> | |



Facts to Know

The world's smallest fish measures about the same length as the nail on your little finger.



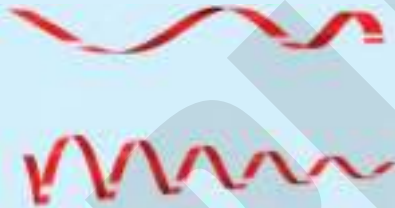


Word Problems

Sharad is $2\text{m } 25\text{cm}$ tall. Rajat is $3\text{m } 15\text{cm}$ tall. Who is taller and by how much?



A piece of ribbon is 60cm long. Another piece of ribbon is 20cm long. What is the total length of two ribbons?



Mini bought a reel of thread measuring 500 metres. She used 250 metres. How much thread was left with her?



The tailor stitched two pieces of cloth together. The length of one piece was 35cm and the other was 22cm . What is the total length of cloth stitched?



A piece of cloth measures $25\text{m } 32\text{cm}$. A piece of $12\text{m } 15\text{cm}$ is cut from it. What is the length of the remaining cloth?





Think Wisely

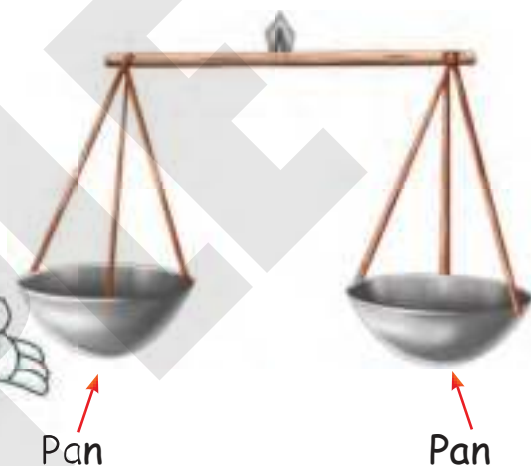
Write the following in descending order:

2 m, 3 m 15 cm, 22 cm, 25m 32 cm.

Let's revise

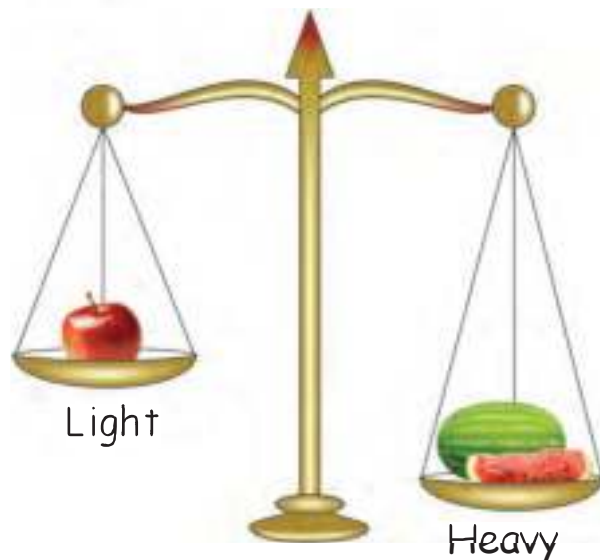
WEIGHT

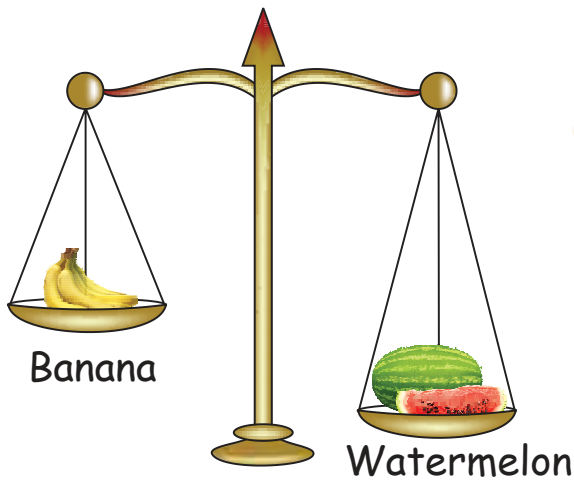
Weighing machine is used to measure the weight of an object.



It has two pans.

The pan which weighs more, comes down.





The pan which weight less, goes up.



Measuring Weight

When we buy fruits, vegetables, rice, sugar, wheat, etc. from the market, the shopkeeper uses different blocks known as **weights**.



Standard units of weight are gram (*g*) and kilogram (*kg*).

1 kilogram = 1000 grams

Gram is used to weight light objects.



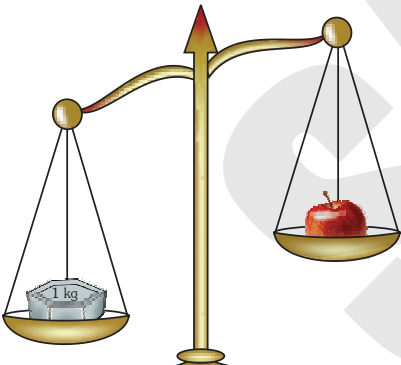
A paper clip is about 1 *g*.

Kilogram is used to weight heavy objects.



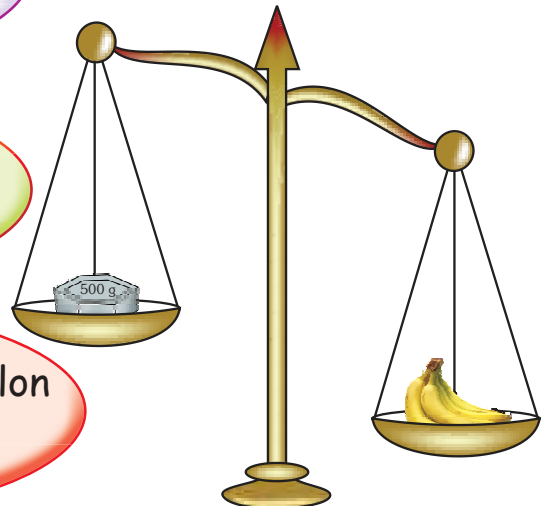
A thick book is about 1 *kg*.

Write down the Weight of Objects



The weight of apples is less than *kg*.

The weight of bananas is more than grams.



The weight of watermelon is equal to *kg*.





Addition of Weights

| kg | g |
|-------|----|
| 42 | 53 |
| + 65 | 21 |
| <hr/> | |
| 107 | 74 |
| kg g | |

First add *g*
then *kg*



| kg | g |
|-------|----|
| 86 | 21 |
| + 42 | 33 |
| <hr/> | |
| | |

| kg | g |
|-------|----|
| 23 | 41 |
| 55 | 20 |
| + 65 | 98 |
| <hr/> | |
| | |

| kg | g |
|-------|----|
| 44 | 22 |
| 93 | 65 |
| + 32 | 59 |
| <hr/> | |
| | |

| kg | |
|-------|--|
| 53 | |
| 62 | |
| + 21 | |
| <hr/> | |
| | |

| g | |
|-------|--|
| 69 | |
| 43 | |
| + 51 | |
| <hr/> | |
| | |



Subtraction of Weights

| kg | g |
|-------|----|
| 65 | 59 |
| - 20 | 42 |
| <hr/> | |
| 45 | 17 |
| kg g | |

First subtract *g*
then *kg*



| kg | g |
|-------|----|
| 42 | 65 |
| - 23 | 91 |
| <hr/> | |
| | |

| kg | g |
|-------|----|
| 92 | 60 |
| - 49 | 52 |
| <hr/> | |
| | |

| kg | g |
|-------|----|
| 88 | 33 |
| - 42 | 56 |
| <hr/> | |
| | |

| kg | g |
|-------|----|
| 219 | 83 |
| - 110 | 20 |
| <hr/> | |
| | |

| kg | g |
|-------|----|
| 256 | 42 |
| - 190 | 60 |
| <hr/> | |
| | |





Word Problems



John had $15\text{ kg } 500\text{ g}$ of guavas. He sold 14 kg guavas. How much guavas are left with him?



A piece of silver block weighs $500\text{ kg } 200\text{ g}$. A block weighing $296\text{ kg } 180\text{ g}$ was cut from it. Find the weight of the remaining silver block.



My mother bought $5\text{ kg } 250\text{ g}$ of mangoes and 2 kg of apples. Find the total weight of fruits.



A shopkeeper had $7\text{ kg } 700\text{ g}$ of flour. He bought $8\text{ kg } 500\text{ g}$ more. What is the total weight of flour with him?



Let's revise

CAPACITY

Capacity means the amount of liquid that a container can hold.

Standard units of capacity are litre (l) and millilitre (ml).



1 litre = 1000 millilitre

Litre (l) is used to measure large quantities.

For example, petrol, diesel, oil cane etc.



Millilitre (ml) is used to measure small quantities.

For example, a glass of juice, a cup of milk, a medicine dropper, etc.



A medicine dropper holds about 1 *ml*.



A glass of water holds about 250 *ml*.



A teaspoon holds about 5 *ml*.



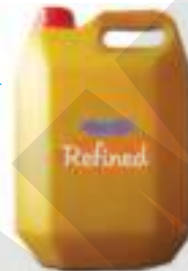
A water bottle holds about 1000 *ml* or 1 *l*.



A cold-drink holds about 2 *l* or 2000 *ml*.



A can of refined oil holds about 5 *l* or 5000 *ml*.



Big oil tankers can hold about 400 *l*, 600 *l* or more.



Standard Containers Used for Measuring Milk



Standard Containers Used for Measuring Oil or Petrol



Addition of Capacities



First add ml then l

| l | ml |
|-------|--------|
| 418 | 720 |
| + 560 | 108 |
| <hr/> | |
| 978 l | 828 ml |

| l | ml |
|-------|----|
| 142 | 65 |
| + 292 | 81 |
| <hr/> | |
| | |

| l | ml |
|-------|-----|
| 36 | 298 |
| + 29 | 721 |
| <hr/> | |
| | |

| l | ml |
|-------|-----|
| 49 | 652 |
| + 56 | 119 |
| <hr/> | |
| | |

| l |
|-------|
| 396 |
| + 298 |
| + 598 |
| <hr/> |
| |

| ml |
|-------|
| 496 |
| + 595 |
| + 642 |
| <hr/> |
| |



Subtraction of Capacities



First subtract
ml then l

$$\begin{array}{r}
 \text{l} \quad \text{ml} \\
 85 \quad 692 \\
 - 74 \quad 521 \\
 \hline
 11 \text{ l} \quad 171 \text{ ml}
 \end{array}$$

$$\begin{array}{r}
 \text{l} \quad \text{ml} \\
 162 \quad 42 \\
 - 118 \quad 46 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 \text{l} \quad \text{ml} \\
 492 \quad 692 \\
 - 329 \quad 508 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 \text{l} \quad \text{ml} \\
 997 \quad 642 \\
 - 529 \quad 607 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 \text{l} \\
 642 \\
 - 198 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 \text{ml} \\
 721 \\
 - 526 \\
 \hline
 \end{array}$$



Word Problems

A man filled 15 l 500 ml of petrol in his car and 5 l 250 ml of petrol in his motor bike. How much petrol did he fill in all?



An oil can hold 80 l of oil. Out of this, 35 l of oil was used. How much oil is left in the can?



A bottle contains 540ml water. Another bottle contains 380ml water. What is the total quantity of water in these two bottles?



A petrol tanker had 500ℓ of petrol. 110ℓ 250ml petrol lost due to leakage. How much petrol is left in the tanker?



Raghu bought 150ℓ of pink paint and 110ℓ of green paint. How many litres of paint did he buy in all?



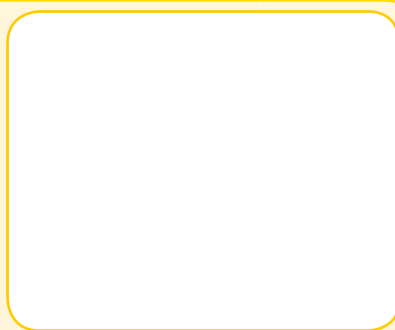
A medicine bottle had 250ml of syrup. Out of this, 50ml of syrup was used. How much syrup is left in the bottle now?



Sona bought a bottle of 2ℓ 250ml of coconut oil and 5ℓ 500ml of almond oil. How much oil did she buy in all?



A cow gave 10ℓ 250ml of milk. The milk man sold 7ℓ 750ml of milk. How much milk was left with him?



Tick (✓) the correct measure:



kg/cm/l



l/m/kg



m/kg/l



km/kg/l



m/l/kg



m/kg/l

Maths Lab Activity

Materials required: A book, a string and a ruler.

Steps:

Hold the string in one hand and keep the book on the table.

Hold one end of the string at one corner of the book and the other end of the string at other end of the string at other end of that side of the book along the length as shown below.

Now hold the two ends of the strings against a ruler and measure it. Note it down in your notebook. This is the length of your book.

Now do the same to measure the length of the other objects you have with or near you.





Learning Objectives

At the end of this lesson, students will be able to:

- Use tally marks to count.
- Make groups of 5s.
- Represent tally marks.



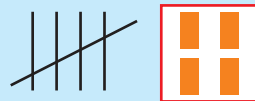
Warm Up

Let's recite:

Let's make TALLY MARKS

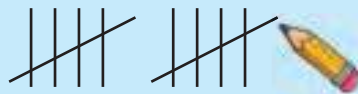
1, 2, 3, 4,

Number 5 shuts the door.



6, 7, 8, 9,

Number 10 draws the line.





Teacher's





Note:

Apprise the students that:
One is expressed by '| ' tally mark.













- Two is represented by '| | ' tally marks.
- Three is represented by '| | | ' tally marks.
- Four is denoted by '| | | | ' tally marks.
- Five is not denoted by '| | | | | ' tally marks in the graphs. For the number 5, draw four vertical lines (| | | |) with a diagonal (\) line through it.



Representing Tally Marks

| Objects | Number | Tally Marks |
|---|--------|-------------|
|  | 1 | \| |
|  | 2 | \|\| |
|  | 3 | \|\|\| |
|  | 4 | \|\|\|\| |



| | | |
|--|----|---|
|  | 5 |  |
|  | 6 |  |
|  | 7 |  |
|  | 8 |  |
|  | 9 |  |
|  | 10 |  |



Facts to Know

Before numbers were invented people found it difficult to keep records of their belongings and hence they used to do counting by sticks which are further known as tally marks.





Count and Draw :



Count the number of objects and then draw tally marks:

| Objects | Number | Tally Marks |
|---------|--------|-------------|
| | | |



Quick Tip

The fifth count is represented by a diagonal line across the previous four lines in the second. It is also considered as one group in tally marks.



Think Wisely

Read the Tally chart given below carefully and answer the questions.

Favorite Pets

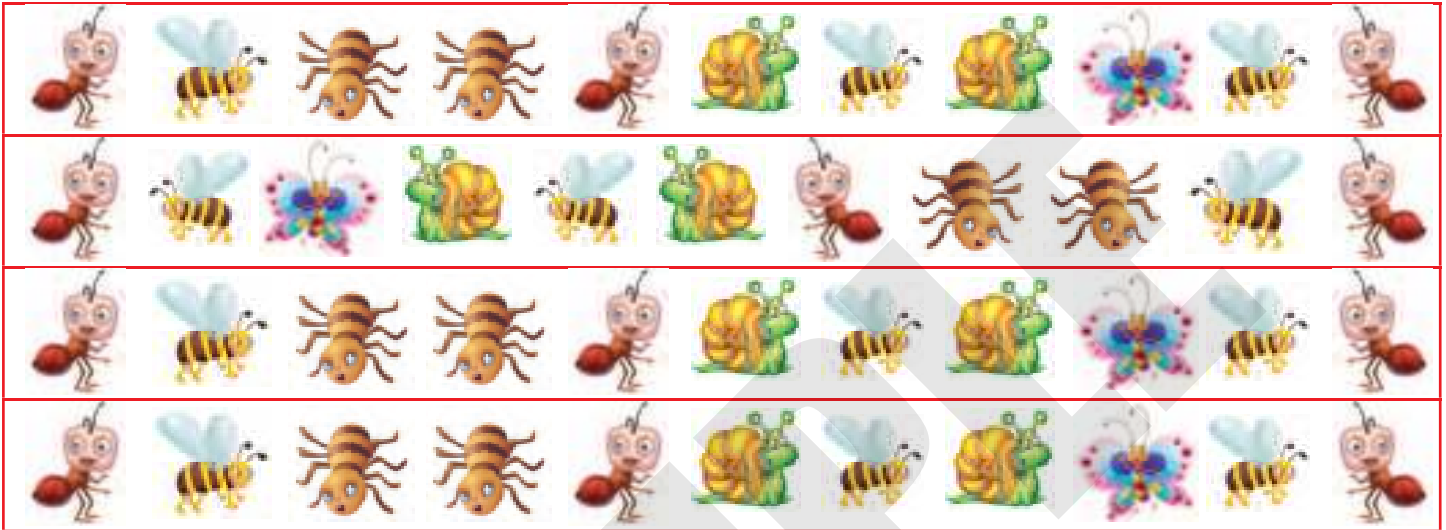
| Pet | Tally Marks |
|-----|-------------|
| | |
| | |
| | |






1. How many people like fish as the favourite pet?



Mental Maths

A. Count the number of insects in each category and draw a tally mark for each one.



| | | BUG TALLY | NUMBER |
|-----------|---|-----------|--------|
| spider |  | | |
| ant |  | | |
| snail |  | | |
| butterfly |  | | |
| bee |  | | |





Maths Lab Activity

Materials required: A pencil

Steps:

1. Observe the hairstyle of the children in your class.

Now, look at the following table and write down:

| Hairstyle | Tally marks |
|------------|-------------|
| Long hair | |
| Short hair | |
| Ponytail | |

- a. How many girls have long hair? _____
- b. How many girls have ponytails? _____
- c. The number of children with short hair is _____ (more/less) than the children with long hair.





Learning Objectives

At the end of this lesson, students will be able to:

- Identify minute and hour hands in a clock.
- Read and write the time.
- Draw the minute and hour hands as per the time mentioned.



Warm Up

Write the time for the following activities you do on daily basis:

1. At what time do you wake up in the morning?



2. At what time do you go to school?



3. At what time do you go to play?



4. At what time do you go to bed?

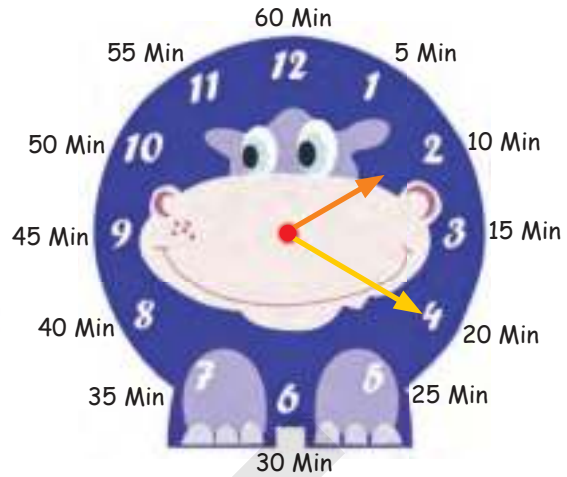


This is a clock

It has two hands

Long hand is the
minute hand →

Short hand is the
hour hand →



Minute hand
takes 5 minutes to
move from one number to
the next.

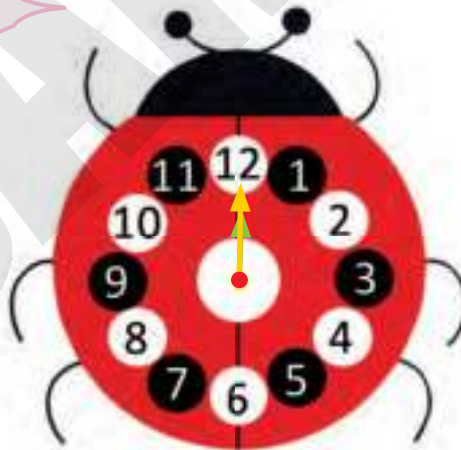
Minute hand
moves round
the clock 24
times in day.

Hour hand takes
1 hour to move from
one number to the
next.

Hour hand moves
round the clock 2
times in a day.

1 Hour = 60 Minutes

Time at 12 o'clock
in the morning is
read as **12 noon**



Time at 12 o'clock
in the night is read
as **12 midnight**



**Teacher's
Note:**

Ask the students to describe their daily routine and specify the time of their activities.

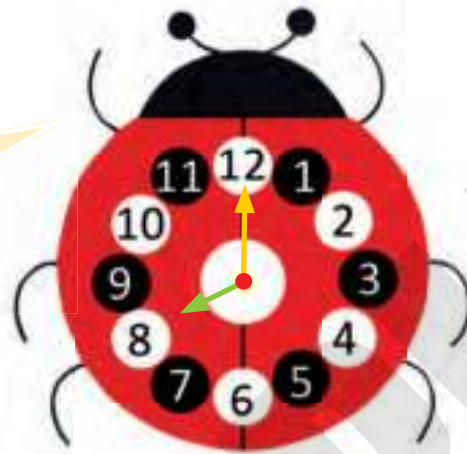


Time from noon until midnight is p.m.

Time from midnight until noon is a.m.

8 o'clock in the morning is read as 8 a.m.

8 o'clock in the night is read as 8 p.m.



Reading Time

In Quarter Hours and Half Hours :

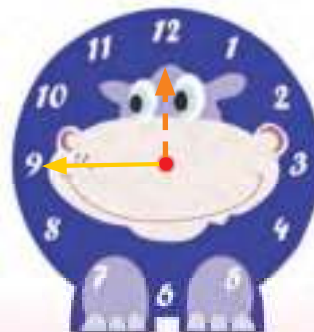
Half Hour = 30 Minutes



Half Past
means minute hand is at 6.



Quarter Past
means minute hand is at 3.



Quarter To
means minute hand is at 9.





Short hand is between 1 and 2. Long hand is at 6.
Time is

Half past 1

or

1 : 30

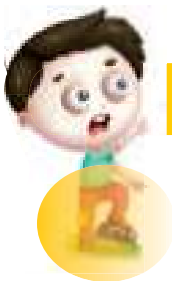


Short hand is at 1.
Long hand is at 3.
Time is

Quarter past 1

or

1 : 15

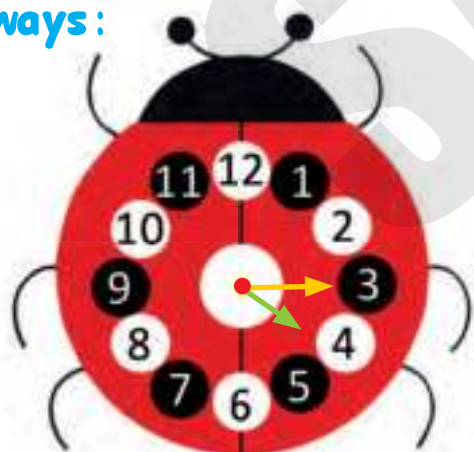


Quick Tip

When the minute hand is on the left hand side of the clock, we read it as - to the hour.

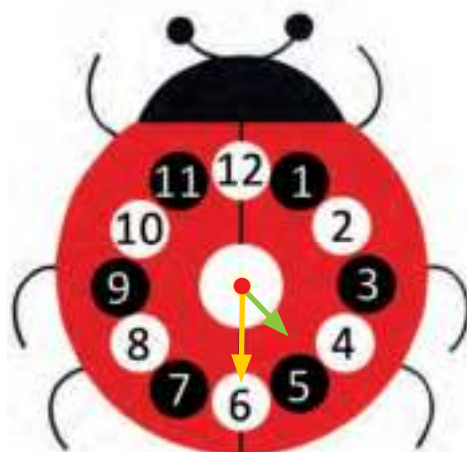
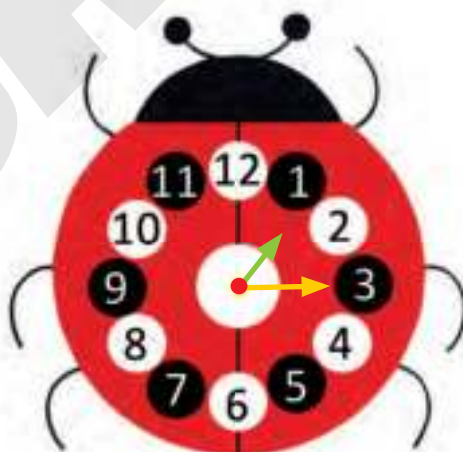
When the minute hand is on the right hand side of the clock, we read it as - past the hour.

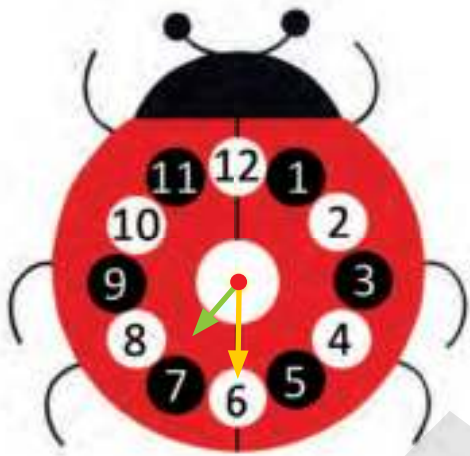
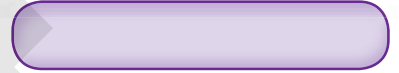
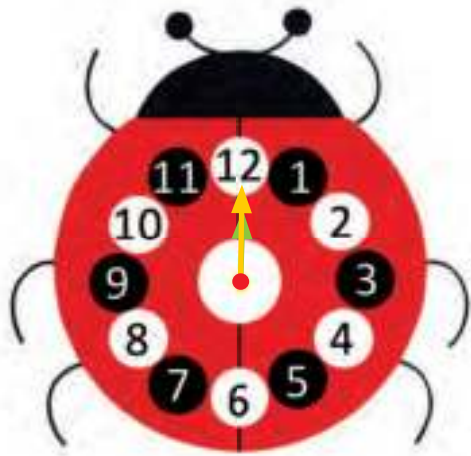
Look at the clock and write the correct time in two different ways:



Quarter Past 4

4 : 15





Draw the minute hand and hour hand to show the time :



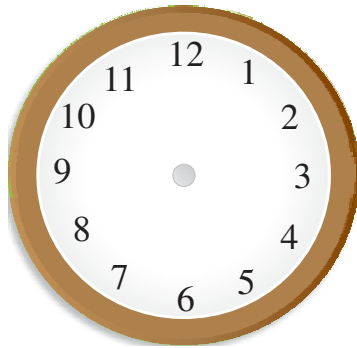
Half past 3



Quarter to 5



Quarter past 11



Half past 8



Quarter to 7



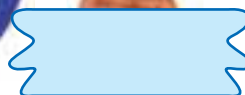
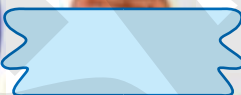
9 o'clock



Reading Time In Minutes



9:10



Facts to Know

The oldest working clock in the world is the Salisbury Cathedral Clock in Salisbury, England. This mechanical clock dates all the way back to 1386.





Think Wisely

Use the clock to fill-in the blanks.

The time is _____.

In 30 minutes the time will be _____.

One hour ago the time was _____.

In one-quarter hour the time will be _____.



Mental Maths

Tick the correct answer:

1. How many hours are there in a day?

I. 25

ii. 36

iii. 24

2. Quarter past 6 can also be written as _____.

3. 2 hours = _____ minutes .

4. 7:30 can be written as _____

5. The short hand of a clock is also called _____ hand.



Maths Lab Activity

Read the statements given below and draw the hands of the clock accordingly.

Steps:

My school starts at

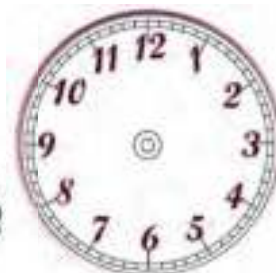
and

ends at



I play at

and end at



I take dinner at

I go to bed at





Learning Objectives

At the end of this lesson, students will be able to:

1. Tell the numbers of months in a year
2. Read the calendar and tell the holidays.
3. Know the six seasons of India.



Warm Up

Let's celebrate!

Answer the following about your birthdate:

1. The day on which you were born?

2. Date on which you were born?

3. Your birth year? _____
4. Number of days in the month you were born? _____



Teacher's Note:

The number of days in a month can be counted using the knuckles on the hand.



Let's revise

DAYS

Monday

Ist

Tuesday

IIInd

Wednesday

IIIrd

Thursday

IVth

Friday

Vth

Saturday

VIth

Sunday

VIIth

There are 7 days in a week.

Days of the Week

Quick Tip

1 fortnight has 2 weeks, 1 months has 4 weeks and a year has 52 weeks

Fill in the blanks:

is the first day of the week.

Friday is the day of the week.

comes between tuesday and thursday.

is the last day of the week.

Tuesday is the day of the week.

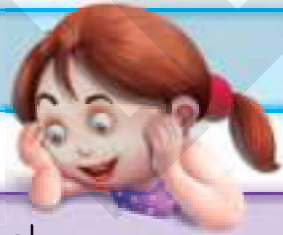
Wednesday comes between and .

comes before sunday.

comes after friday.

Thursday comes after .

Monday comes before .





Yesterday, Today, Tomorrow



Complete the table :

| Yesterday | Today | Tomorrow |
|-----------|----------|-----------|
| ..... | Monday | ..... |
| ..... | ..... | Wednesday |
| Tuesday | ..... | ..... |
| ..... | Thursday | ..... |
| ..... | ..... | Saturday |
| Friday | ..... | ..... |
| ..... | Sunday | ..... |





Let's revise

MONTHS OF THE YEAR



2022 Calendar

| January | | | | | | |
|---------|----|----|----|----|----|----|
| S | M | T | W | T | F | S |
| | | | | | | 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 | | | | | | |
|----------|----|----|----|----|----|----|
| S | M | T | W | T | F | S |
| | | 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 | | | | | |

| March | | | | | | |
|-------|----|----|----|----|----|----|
| S | M | T | W | T | F | S |
| | | 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 | | |

| April | | | | | | |
|-------|----|----|----|----|----|----|
| S | M | T | W | T | F | S |
| | | | | | 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 |

| May | | | | | | |
|-----|----|----|----|----|----|----|
| S | M | T | W | T | F | S |
| 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 | | | | |

| June | | | | | | |
|------|----|----|----|----|----|----|
| S | M | T | W | T | F | S |
| | | | | 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 | |

| July | | | | | | |
|------|----|----|----|----|----|----|
| S | M | T | W | T | F | S |
| | | | | | 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 | | | | | | |

| August | | | | | | |
|--------|----|----|----|----|----|----|
| S | M | T | W | T | F | S |
| | | 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 | | |

| September | | | | | | |
|-----------|----|----|----|----|----|----|
| S | M | T | W | T | F | S |
| | | | | | 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 |

| October | | | | | | |
|---------|----|----|----|----|----|----|
| S | M | T | W | T | F | S |
| | | | | | | 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 | | | | | |

| November | | | | | | |
|----------|----|----|----|----|----|----|
| S | M | T | W | T | F | S |
| | | 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 | | | |

| December | | | | | | |
|----------|----|----|----|----|----|----|
| S | M | T | W | T | F | S |
| | | | | | 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 | | | | | | |



MONTHS

January

Ist

February

IIInd

March

IIIrd

April

IVth

May

Vth

June

VIth

July

VIIth

August

VIIIth

September

IXth

October

Xth

November

XIth

December

XIIth

There are 12 months in a year.

Months of the Year





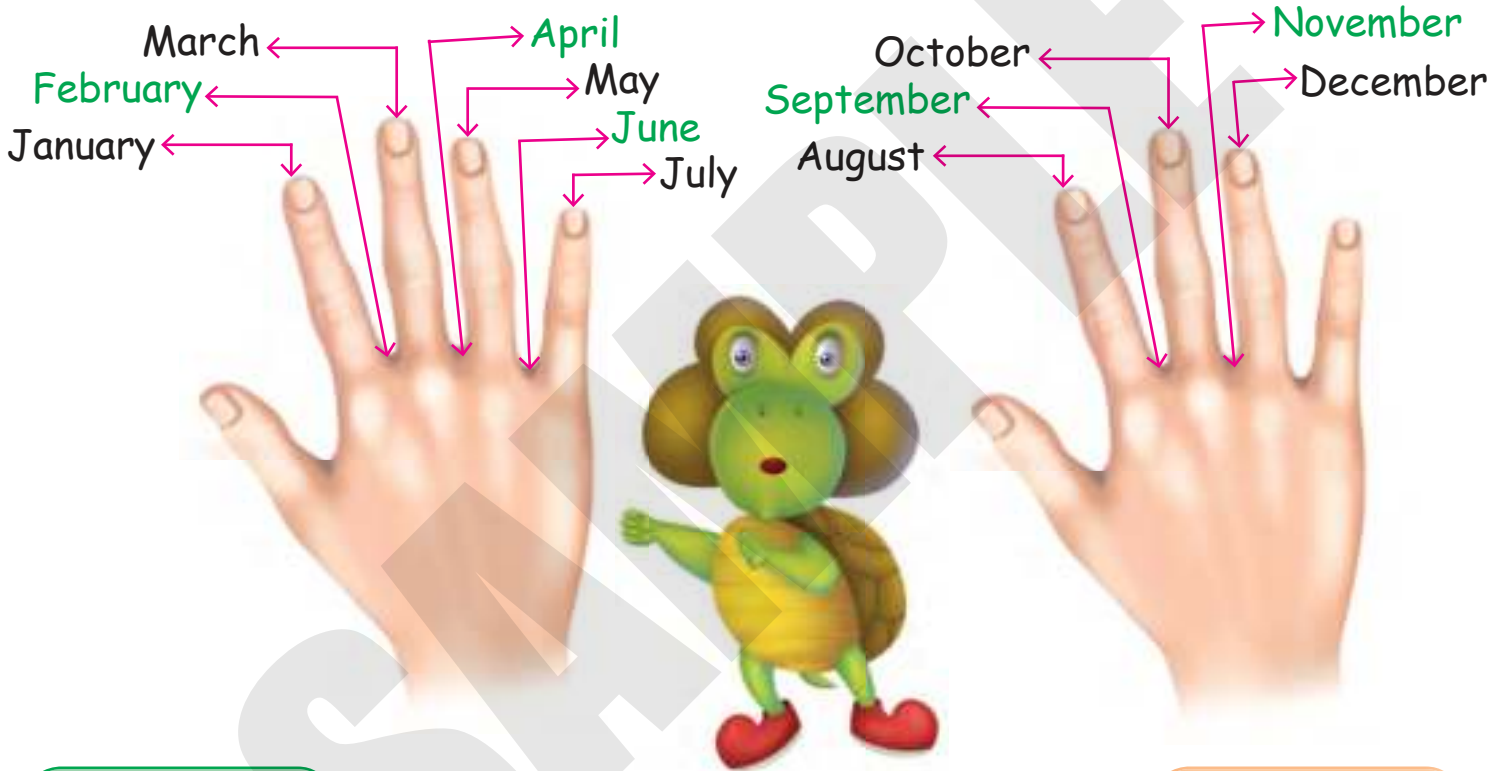
January is the first month of the year.

December is the last month of the year.



How to Remember Days in a Month ?

Use knuckle tick to know days in every month.



January, March, May, July, August, October and December has 31 days

7 months has 31 days

4 months has 30 days

April, June, September and November has 30 days

February has 28 or 29 days

1 month has 28 or 29 days





Sequencing Events of the Year

Match the events to the correct month:



Happy Holi



Independence Day



Merry Christmas



Children's Day



Happy Diwali



Teacher's Day

January

February

March

April

May

June

July

August

September

October

November

December



Your Birthday



Two months of summer vacations



Gandhi Jayanti

January

February

March

April

May

June

July

August

September

October

November

December

1st
April

Fool's Day



New Year's Day



Republic Day



Facts to Know

The ancient Roman had a holiday called Hilaria. This is when they played jokes on each other.

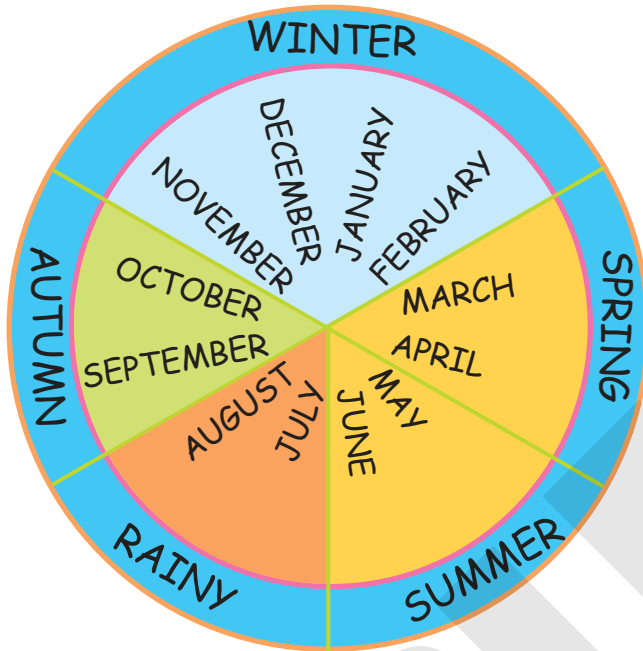
It was very similar to April Fools!



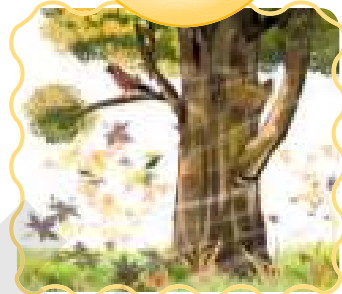
Seasons



In India, we mainly have these five seasons.



Autumn
September
October



Winter
November
December
January
February



Spring
March
April



Summer
May
June



Rainy
July
August



Fill in the blanks:

We wear woollens in season.



We wear raincoats in season.



We drink cold-drinks in season.



We use umbrellas in season.

We use A.C. in season.



We use room heaters in season.

Holi comes in season.



Republic day comes in season.

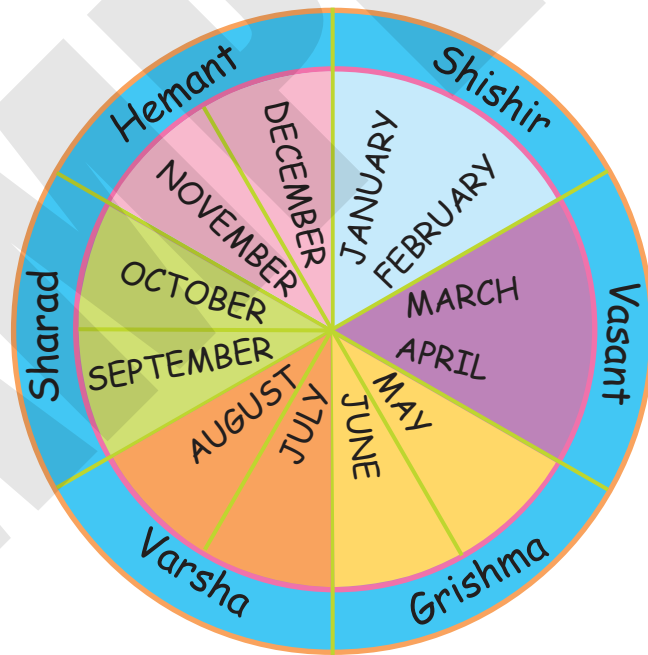


Gandhi Jayanti comes in season.



Christmas comes in season.

As per the Indian calendar, year is divided into six seasons.



Shishir
January
February

Vasant
March
April

Grishma
May
June

Varsha
July
August

Sharad
September
October

Hemant
November
December





Grishma is the summer season. Its very hot. We use A.C., cooler, fan, etc. to stay indoors. We enjoy ice-creams and cold-drinks.



Varsha is the rainy season. We use raincoats and umbrellas to go outside.

Sharad is the autumn season. It is neither too cold nor too hot. The weather is very pleasant.



Hemant is the winter season. It is very cold. We wear woollens and use hot blankets at night. We take bath from hot water.



Shishir is the colder winter. We celebrate new-year day.





Vasant is the spring season. New flowers and leaves grows on the trees. The weather is very pleasant.

Match the following:

Shishir

Vasant

Grishma

Varsha

Sharad

Hemant





Think Wisely

1. If tomorrow is Sunday, what was the day before yesterday?
2. The day before yesterday was Monday. What will be the day after tomorrow?



Mental Maths

1. Answer the following:

A. List the months which have 30 days.

B. Which is the shortest month? _____

C. Name the months of this year which have 5 sundays.

D. How many weeks are there in a year? _____

E. How many seasons are there in India? _____



Maths Lab Activity

Aim: To identify the months of a year

Materials required: Placards with all the 12 months written — 3 sets, that is, $3 \times 12 = 36$ placards

Procedure:

Steps:

1. Have 3 sets (so that all students can participate at the same time) of placards ready with the name of each month written on each placard.
2. Give one placard to each child.
3. Students to hold the placards with both their hands in front of them.
4. Ask each complete group to stand in a horizontal line in the correct order from January to December.
5. All the students to read out aloud the names of the months in order.
6. Now have them stand in a circle. Play music or clap hands and students should go around in the circle.
7. Stop clapping or playing the music and call out the name of any month by giving a hint. For example, the month that comes after May, the shortest month, etc.
8. All those students who have the placard of that month's name should raise their placards above their heads.
9. After 3 rounds, call out multiple months. For example, the first and the last month, the months that begin with the letter 'J' the last three months.
10. After 3 rounds, now when the music stops, ask the students to stand in a horizontal line in the correct order from January to December.





Geometrical Shapes



Learning Objectives

At the end of this lesson, students will be able to :

1. Know about different types of lines.
2. Identify solid and plane figures.
3. Tell the faces, edges and vertices of solid and plane figures.



Warm Up

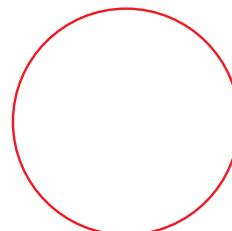
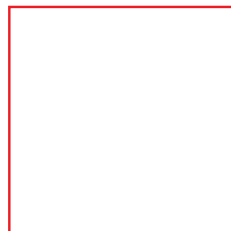
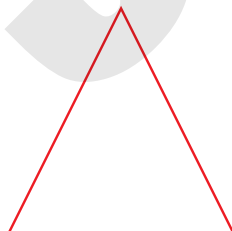
Count and write:

Squares - _____

Circles - _____

Squares - _____

Rectangles - _____



Teacher's Note:

Apprise the students that a point has no size. It means, it has no length, breadth or height.

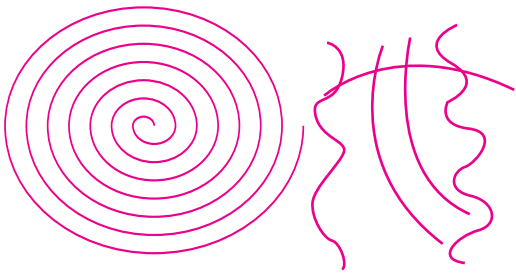


POINT

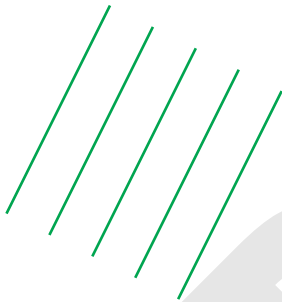
There are different types of lines.

A simple dot (.) is known as point

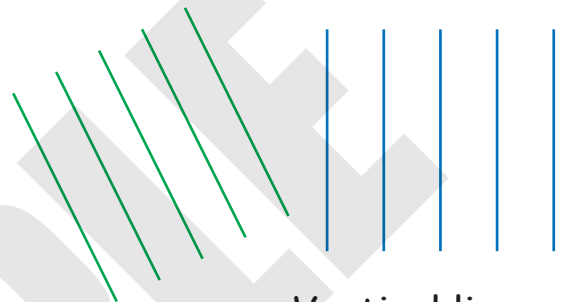
Horizontal lines
or
Sleeping lines



Curved lines

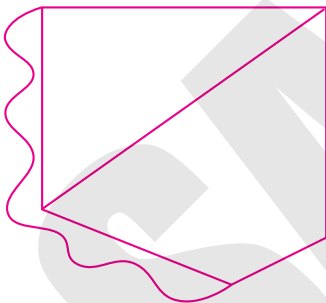


Slanting lines

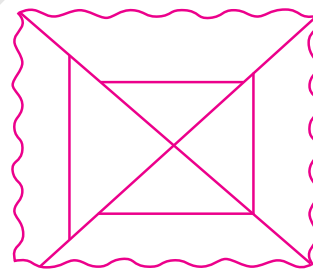


Vertical lines or
Standing lines

Count the number of different types of lines in each of the following figures:



Horizontal lines
Vertical lines
Slanting lines
Curved lines

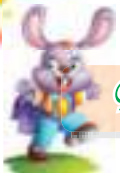


Horizontal lines
Vertical lines
Slanting lines
Curved lines



Quick Tip

A line is a set of points. It has no beginning and no end.



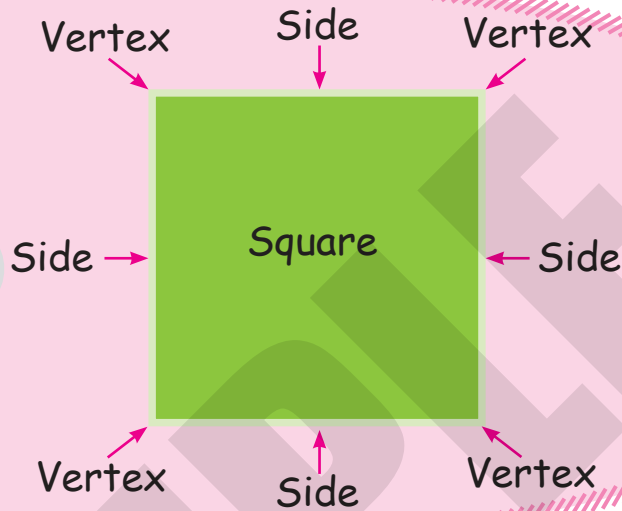
Plane Figures

Vertex is the corner of a plane figure.

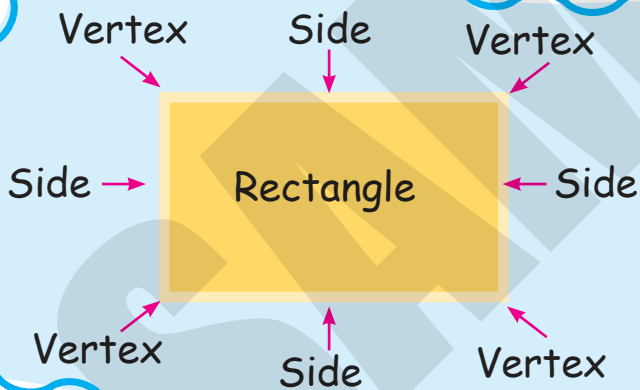
Plane figures has only 1 face.

Sides are the straight lines used in forming a plane figure.

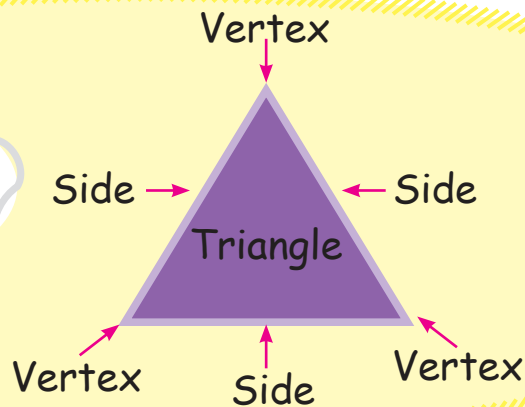
A **square** has four sides and four vertices. All the four sides of a square are equal.

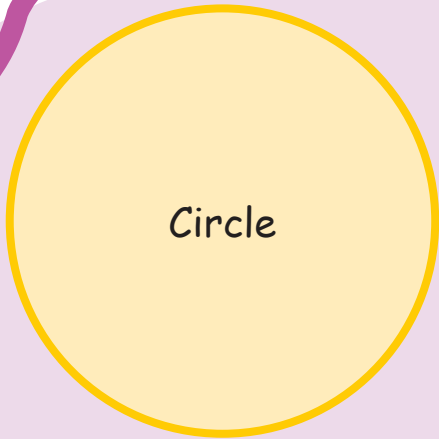


A **rectangle** has four sides and four vertices. The opposite sides of a rectangle are equal.



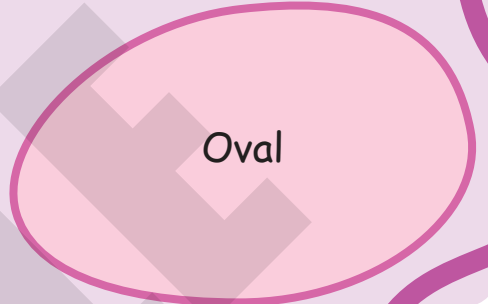
A **triangle** has three sides and three vertices.





Circle

A **circle** is round in shape. It has no side and no vertex.








Oval

An **oval** has flat egg-like shape. It has no side and no vertex.

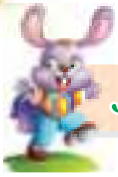


Count and Write

Count and write the different shapes in the figures given below:

| | |
|------------|---|
| Circles |  |
| Squares |  |
| Triangles |  |
| Rectangles |  |
| Ovals |  |





Solid Figures

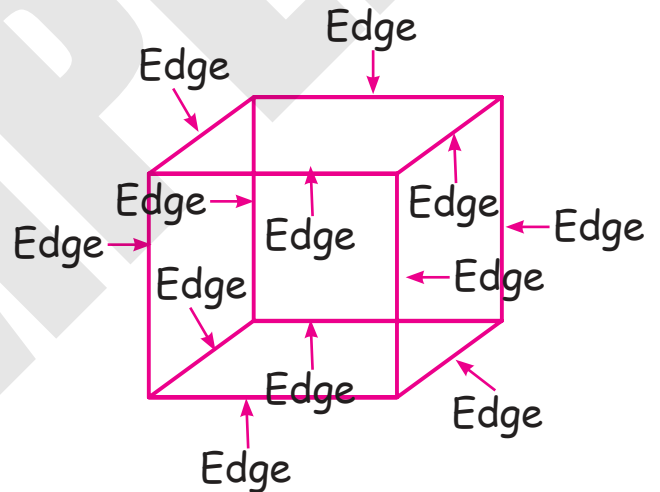
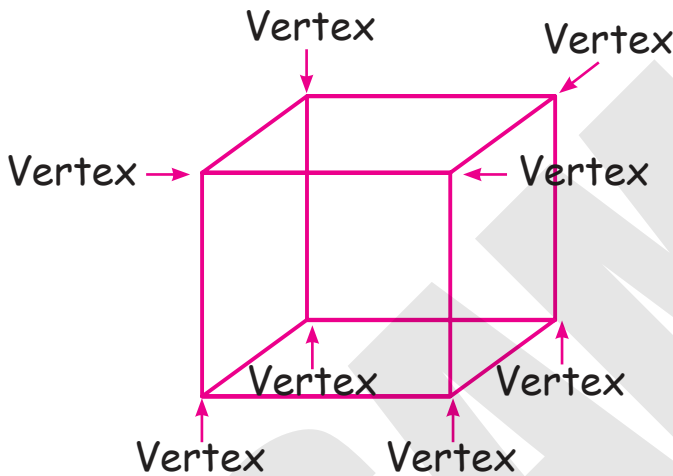
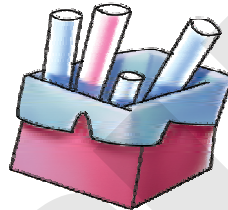
Solid figures has many faces.



CUBE

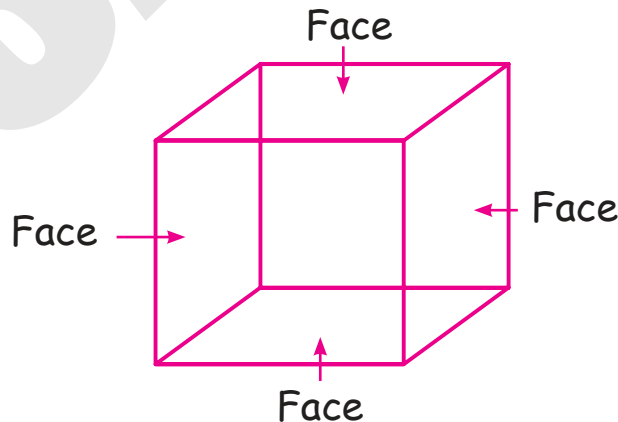
CUBE looks like a dice.

Some of the examples of cube are shown are:



A cube has 8 vertices.

A cube has 12 edges.



A cube has 6 flat faces. Each face of a cube is a square.



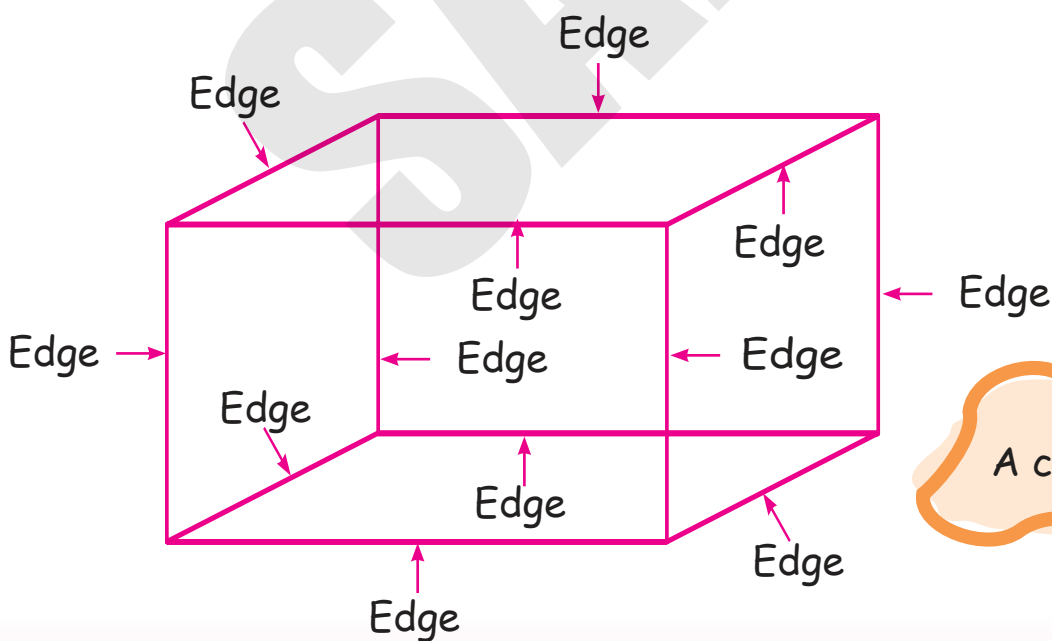
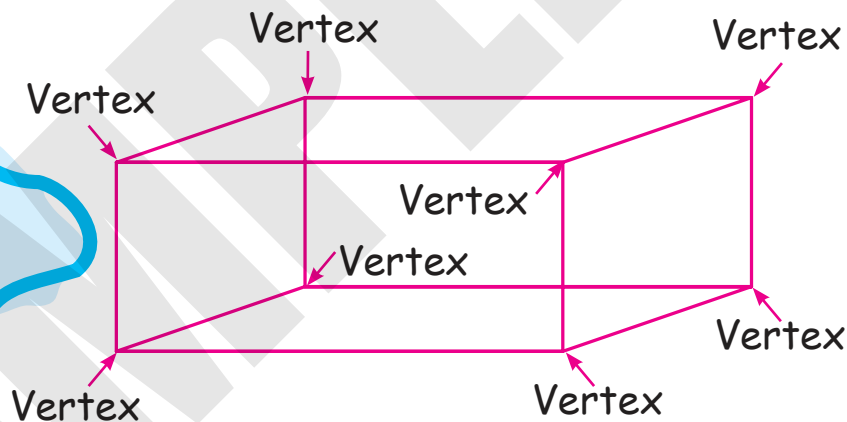
CUBOID

CUBOID looks like a brick.

Some of the examples of cuboid are shown below:

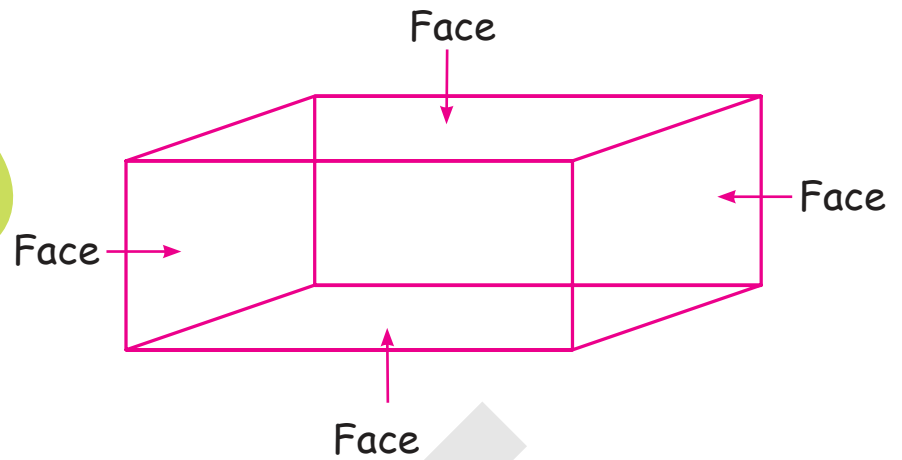


A cuboid has 8 vertices



A cuboid has 12 edges

A cuboid has **6 flat faces**.
Each face of a cuboid is a rectangle.



SPHERE

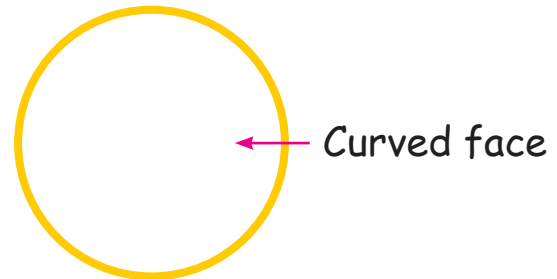
SPHERE looks like a ball.



Some of the examples of sphere are shown below:



A sphere has **1 curved face**,
no edge and **no vertex**.



Facts to Know

- Every point on the surface of a sphere is the exact same distance from the centre.



CONE

CONE looks like a tent.

Some of the examples of cone are shown below:



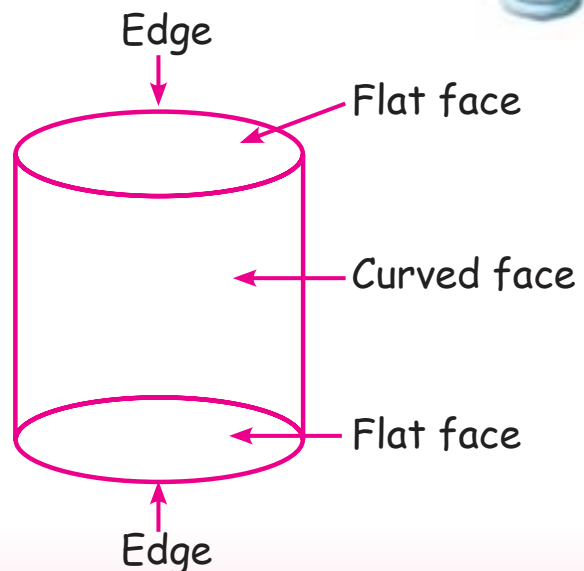
CYLINDER

CYLINDER looks like a drum.

Some of the examples of cylinder are shown below:



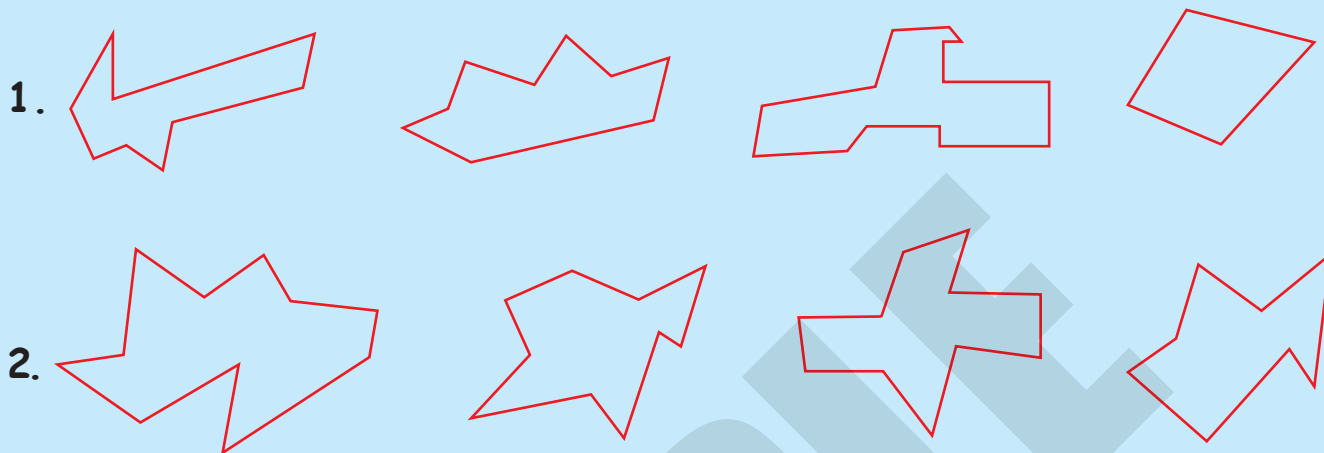
A cylinder has **no vertex**,
2 edges and **3 faces**.
(2 flat & 1 curved)





Think Wisely

A. Tick the figures having more vertical lines in each set.



Mental Maths

1. Answer the following in one word:

- Name the shape in which all four sides are equal. _____
- In which shape are opposite sides equal? _____
- Name the solid shape which has 1 curved face and 0 edges and vertices. .
- Which shape looks like a drum? _____
- What is the other name for vertical lines? _____



Match the balloons with right shape:

Steps:

You see me in a tubelight and piece of chalk

3D-shape with exactly one face

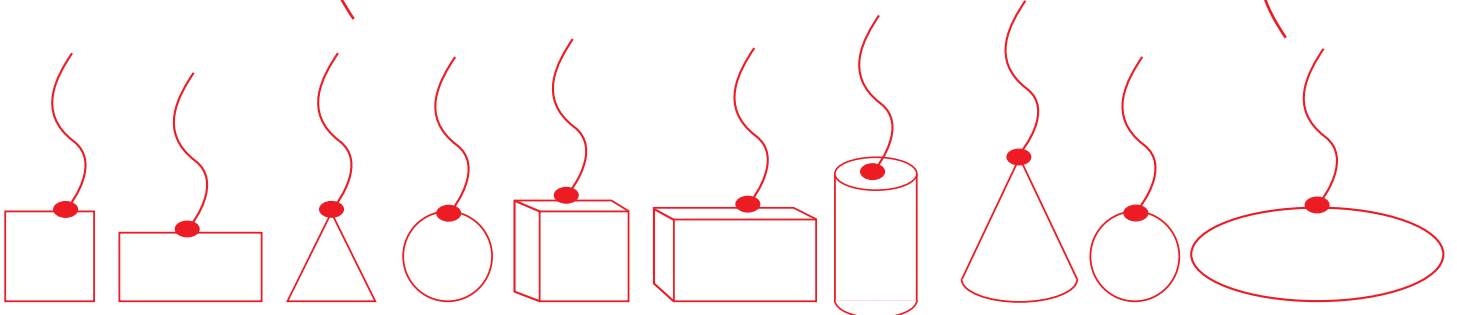
Can trace me with the help of a Bengal

Your favourite Ludo dice is a copy of mine

A shape with four equal sides

I am the shape of an egg

I have 8 faces but not all same





Learning Objectives

At the end of this lesson, students will be able to :

1. Identify the different types of patterns.
2. Observe the pattern to make the sequence.



Warm Up

Draw and colour the next pattern.

| | | |
|----|--|--|
| 1. | | |
| 2. | | |
| 3. | | |
| 4. | | |
| 5. | | |



Let's revise

Observe and complete the patterns given below:



Aa Bb Cc

Everyday, we see lots of patterns around us.
Some of them are:

Patterns on snakes



Quick Tip

In order to continue the pattern, concentrate at the given pattern carefully and make connections.

Patterns on bed sheets



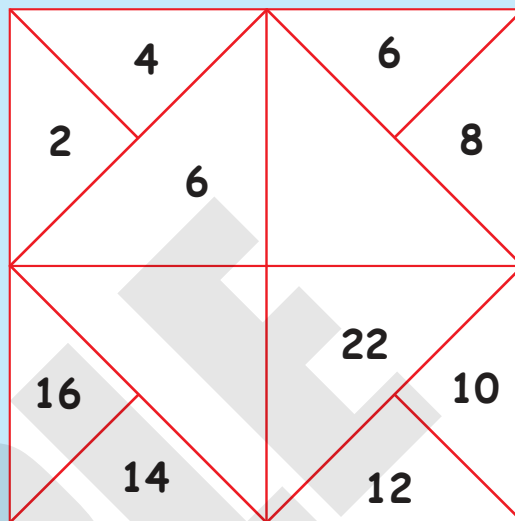
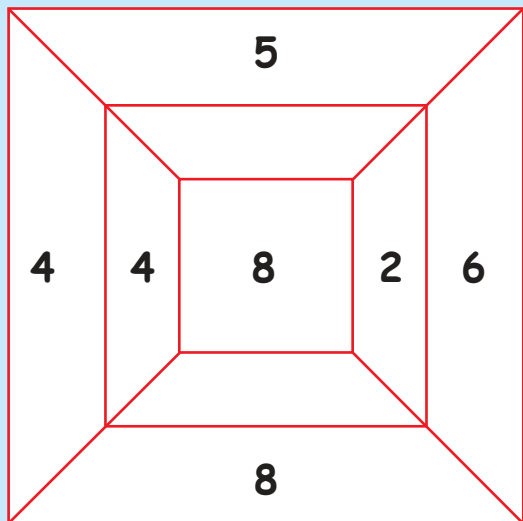
Teacher's Note:

Elucidate students that a recurring arrangement of numbers, shapes, colours, and other elements constitutes a pattern. Any kind of event or object can be connected to the Pattern. When a group of numbers are arranged in a particular way, the arrangement is referred to as a pattern. It can also occasionally be referred to as a series.



Think Wisely

Study the pattern in each grid and fill in the missing numbers:



Facts to Know

Your fingerprints are made of several layers of twisted skin that formed prior to birth. These ridges of skin make patterns.



Mental Maths

Complete the patterns.

- A1 , B2, C3, _____, _____, _____, _____
- 155,150,145,140, _____, _____, _____, _____
- ABC, CDE. EFG, _____, _____, _____, _____
- AZ, BY,CX,DW, _____, _____, _____, _____
- 35,42,49, _____, _____, _____, _____





Maths Lab Activity

Materials required: Ladyfinger, potato, tomato, painting colours and a sheet of paper.

Steps:

1. Cut the vegetables.
2. Dip them in different colours and press them on plain paper.
3. Make different patterns using the prints.

