पुणा International School

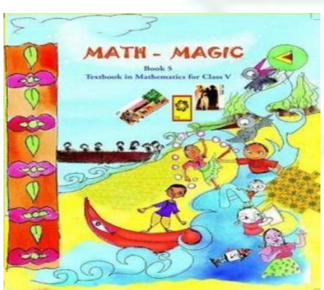
Shree Swaminarayan Gurukul, Zundal

Class -V

Math - magic

Study material

Month - October and November



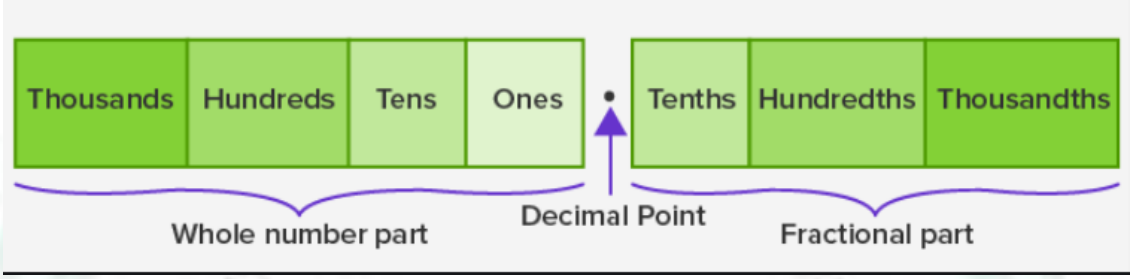
Ch-10

Tenths and Hundredths

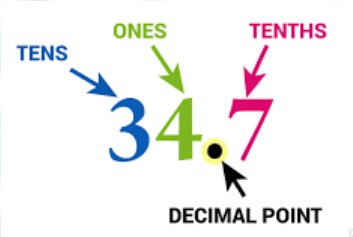
❖ **Key points to remember:**

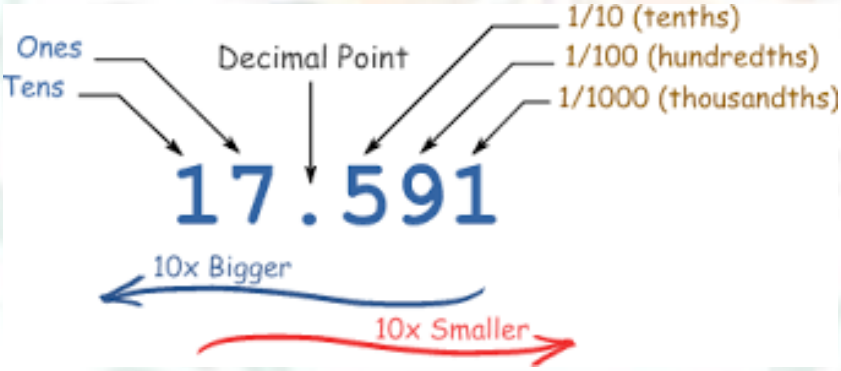
- Introduction
- Write as mixed numerals
- Compare using >, < or =
- Arrange in ascending order
- Arrange in descending order
- Fill in the blanks
- Word problems
- MCQ's
- Activity

❖ **Introduction:**



Example:





❖ **Convert fraction into decimal:**

1) $\frac{457}{100}$ = 4.57
2) $\frac{5}{10}$ = 0.5
3) $\frac{1}{2}$ = 0.5
4) $\frac{3}{4}$ = 0.75
5) $\frac{60}{10}$ = 6.0

6) $\frac{870}{100}$ = 8.7

7) 200 + 0 + 2 + $\frac{1}{10}$ + $\frac{3}{100}$ = 202.13

8) 50 + 6 + $\frac{0}{10}$ + $\frac{0}{100}$ = 56.00

9) $\frac{35}{100}$ = 0.35

10) $\frac{93}{100}$ = 0.93

11) $\frac{5}{100}$ = 0.05

12) $\frac{1}{4}$ = 0.25

❖ **Write as mixed numerals:**

1) 2.84 = $2\frac{84}{100}$

2) 39.075 = $39\frac{075}{1000}$

= $39\frac{75}{1000}$

3) 77.77 = $77\frac{77}{100}$

4) 9.120 = $9\frac{120}{1000}$

5) 281.004 = $281\frac{004}{1000}$

= $281\frac{4}{1000}$

❖ **Comparison use sign (>,< or =)**

1) 0.734 > 0.374

2) 99.5 > 99.05

3) 369.5 > 3.695

4) 0.005 = 0.005

5) 6.49 < 64.9

6) 75.1 > 7.51

7) 0.09 > 0.009

8) 2.87 = (2.32 + 0.55)

❖ **Arrange in ascending order:**

1)	2.35,	22.35,	0.235,	2.325
Ans	**0.235,**	**2.325,**	**2.35,**	**22.35**
2)	7.64,	77.064,	7.46,	77.604
Ans	**7.46,**	**7.64,**	**77.064,**	**77.604**
3)	1.05,	3.05,	0.05,	2.05
Ans	**0.05,**	**1.05,**	**2.05,**	**3.05**
4)	2.09,	9.02,	2.90,	9.20
Ans	**2.09,**	**2.90,**	**9.02,**	**9.20**

❖ **Arrange in descending order:**

1)	4.87,	4.78,	8.74,	8.47
Ans	**8.74,**	**8.47,**	**4.87,**	**4.78**
2)	2.08,	2.80,	8.02,	8.20
Ans	**8.20,**	**8.02,**	**2.80,**	**2.08**
3)	9.054,	9.045,	9.450,	9.540
Ans	**9.540,**	**9.450,**	**9.054,**	**9.045**
4)	6.32,	6.23,	6.302,	6.023
Ans	**6.32,**	**6.302,**	**6.23,**	**6.023**

❖ **Fill in the blanks:**

1) 3 cm 4 mm is equal to **3.4** cm.
2) 7.8 cm is equal to **7** cm and **8** mm.
3) 15.64 m is equal to **15** m and **64** cm.
4) 3.129 km is equal to **3** km and **129**m.
5) Rs21 Paise 3 is equal to **21.3** Rs.

❖ **Word problems:**

1) Monika paid Rs 8.25 for chips and Rs 5.75 for chocolates. She got Rs 7 as return from the shop keeper. How much money did she pay?

Solution: Monika paid 8.25 chips
+ 5.75 chocolates
14.00 Total

14.00 Total
+ 7.00 Shopkeeper return.
21.00 she paid to shopkeeper

Monika paid Rs 21.00 to shopkeeper

2) Rohit had Rs 150. He bought sugar for Rs 19.50, rice for Rs 90 and biscuit for Rs 28.25. How much money was he left with?

Solution: Rohit had Rs 150
19.50 he bought sugar
+ 90.00 he bought rice
+ 28.25 he bought biscuit
137.75 Total

Total money Rohit left with him = 150 - 137.75 = Rs 12.25.

❖ **MCQ's:**

1) 9 cm = _____ mm
a) 0.9 **b) 90** c) 900 d) 9000

2) Eighty-seven hundredths are:
a) 8700 b) 870 c) 8.7 **d) 0.87**

3) Four hundred fifty-seven thousandths are:
a) 0.407 b) 457 **c) 0.457** d) 45700

4) The shaded part in 
a) Eight-tenths **b) six- eighth** c) two – eighth d) eight-hundredths

5) Seven-tenths of a cm is equal to **0.7** cm.

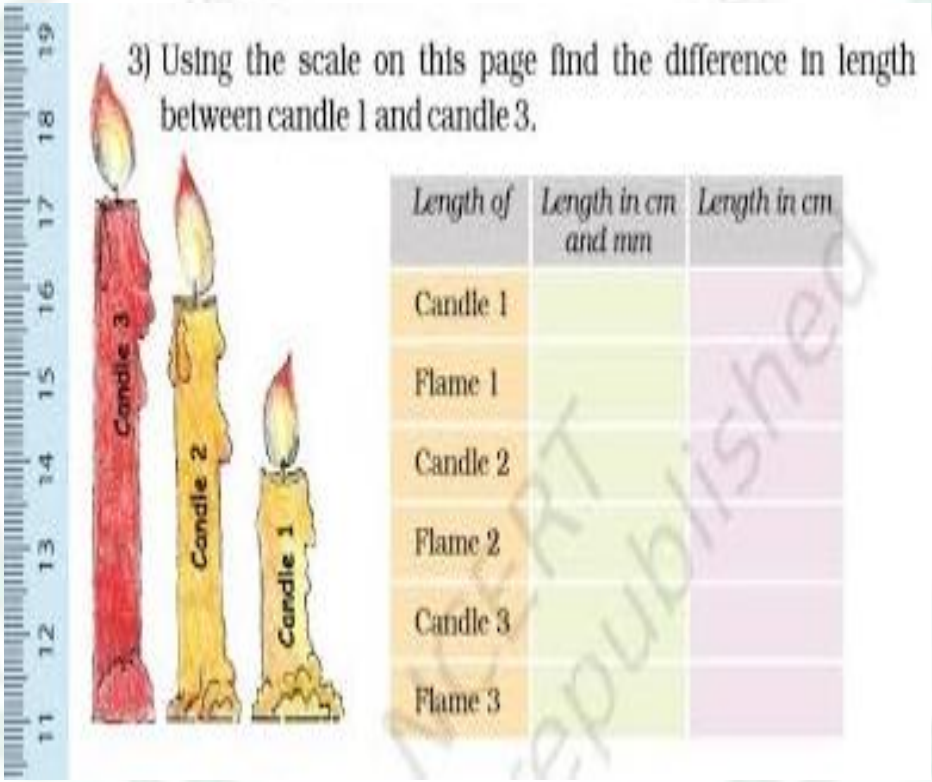
a) 7 b) 0.07 c) **0.7**

6) Three-hundredths of a m is **<u>3</u>** cm

a) 0.03 b) 0.03 c) **3**

❖ **Activity:**

- **Using the scale and find the difference in length of candles and flame (Do in theText book page no:136)**

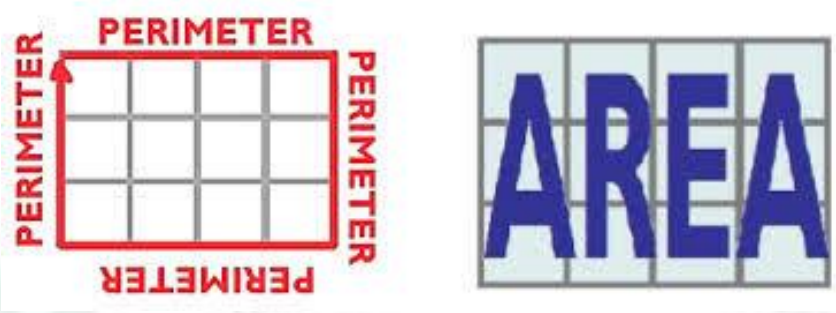


Ch-11 Area and it's boundary

❖ **Key points to remember:**

- Introduction
- Find the perimeter (by figure)
- Find the missing length (with help of perimeter)
- Fill in the blanks
- Word problem
- Activity

❖ **Introduction:**



➢ **Perimeter:** The total length of all the line segments of a closed figure is called its perimeter.

- Perimeter of rectangle= 2(length + breadth)
- Perimeter of square = 4×length
- Perimeter of triangle = Sum of three sides

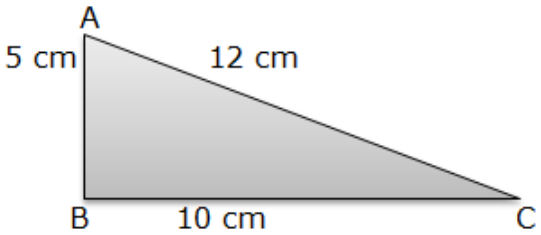
➢ **Area:** The region enclosed between boundaries of a figure.

Area of rectangle = Length × Breadth

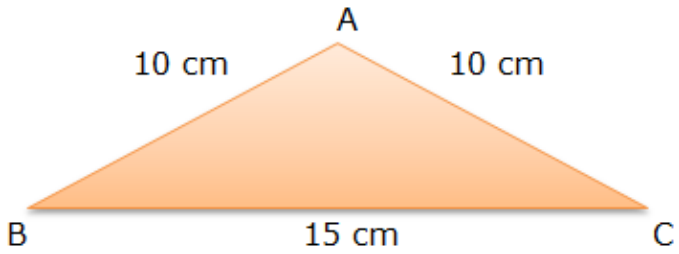
Area of square = length × Length

➢ Types of triangle

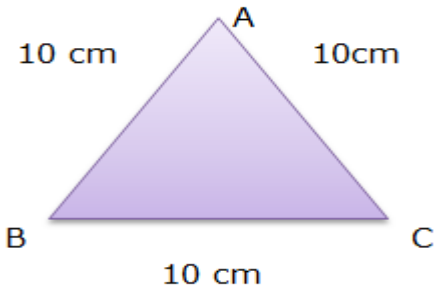
Scalene Triangle - A triangle whose all three sides are of different length is known as scalene triangle.



Isosceles Triangle - A triangle whose two sides are of equal length is known as isosceles triangle.

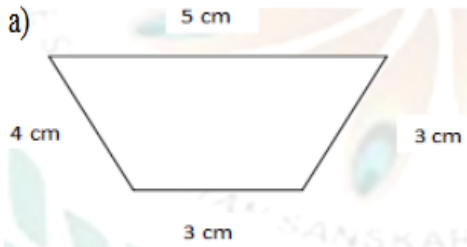


Equilateral Triangle - A triangle whose all sides are of equal length is known as equilateral triangle.



❖ **Find the perimeter irregular figure:**

a)



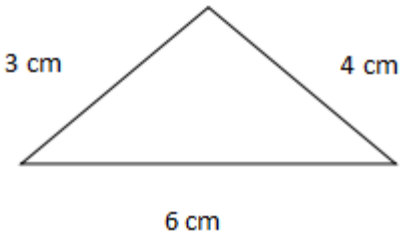
Solution

Perimeter = sum of all the sides

= 5 cm + 4 cm+ 3 cm + 3 cm

= 15 cm

b)



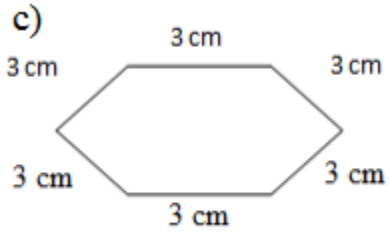
Solution

Perimeter = sum of all the sides

= 3 cm + 4 cm + 6 cm

= 13 cm

c)



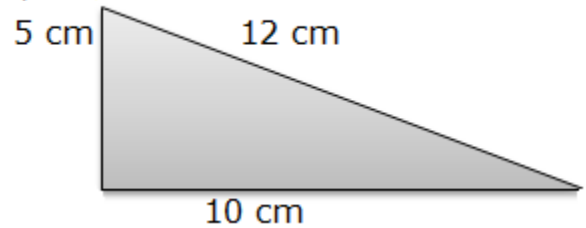
Solution

Perimeter = sum of all the sides

=3 cm + 3 cm + 3 cm + 3 cm + 3 cm + 3 cm

= 18 cm.

d)



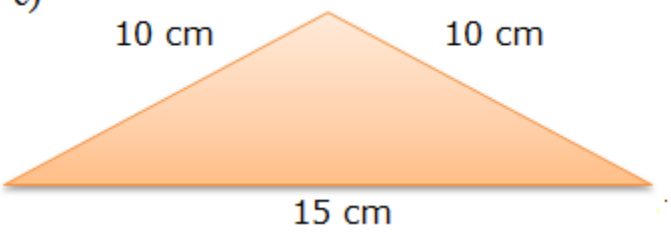
Solution

Perimeter of Scalene Triangle = Sum of three sides

= 5 cm + 10 cm + 12 cm

= 27 cm

e)



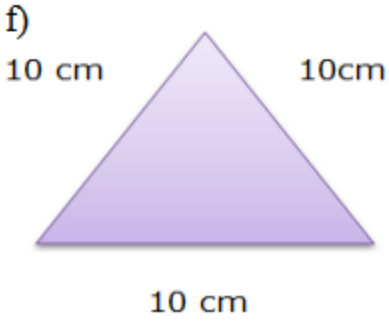
Solution

Perimeter of Isosceles Triangle = Sum of three sides

= 10 cm + 15 cm + 10 cm

= 35 cm

f)



Solution

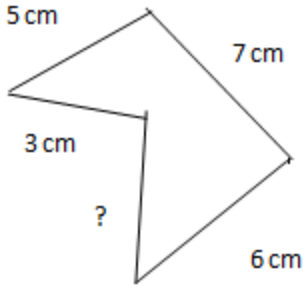
Perimeter of Equilateral Triangle = Sum of three sides

= 10 cm + 10 cm + 10 cm

= 30 cm.

❖ **Find the missing length (with help of perimeter):**

a)



Perimeter = 25 cm

Solution

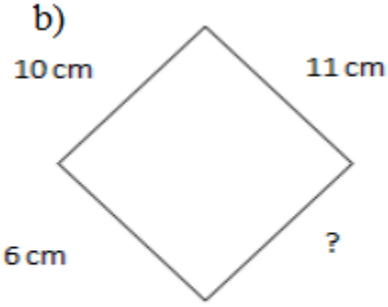
5 cm + 7 cm + 6 cm + 3 cm + x = 25 cm

21 cm + x = 25 cm

X = 25 -21

X = 4 cm

b)



Perimeter = 32 cm

Solution

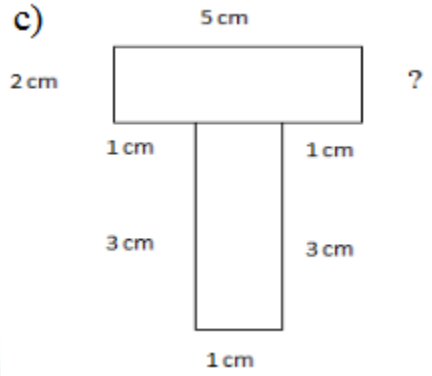
10 cm + 11 cm + 6 cm + x = 32 cm

27 cm + x = 32 cm

X = 32 cm – 27 cm

X= 5 cm

c)



perimeter = 18 cm

Solution

5cm + 2cm + 1cm +3cm + 1cm + 3cm + 1 cm + x = 18 cm

16cm + x = 18cm

X = 18 – 16

X = 2 cm.

❖ **Fill in the blanks:**

1) The distance around a square field can be calculated using formula **4 × length.**
2) **Area** is region enclosed between the boundaries of a figure.
3) The measurement of length and breadth is needed to calculate the area of a **rectangle.**
4) A rectangle plot is 25 m × 15 m in dimensions. The total wire needed to fence around it is **80 m.**

❖ **Word problems:**

1) The area of rectangle is 225 sq m. If the width of it rectangle is 9 m. what is the length of a rectangle?

Solution:

area of rectangle = 225 sqm

Width = 9 m

Length =?

(Area of rectangle = length × width)

Length = $\frac{area\ of\ rectangle}{width}$

= $\frac{225}{9}$

= 25 m

Length = 25 m

2) The area of rectangle is 84 sq m. If the length of it rectangle is 12 m. what is the width of a rectangle?

Solution:

area of rectangle = 84 sq m

Length = 12 m

Width =?

Width = $\frac{area\ of\ rectangle}{length}$

= $\frac{84}{12}$

= 7 m

Width = 7 m

3) The area of rectangle is 375 sq m. If the length of it rectangle is 15 m. what is the width of a rectangle?

Solution:

area of rectangle = 375

Length = 15 m

Width =?

Width = $\frac{area\ of\ rectangle}{length}$

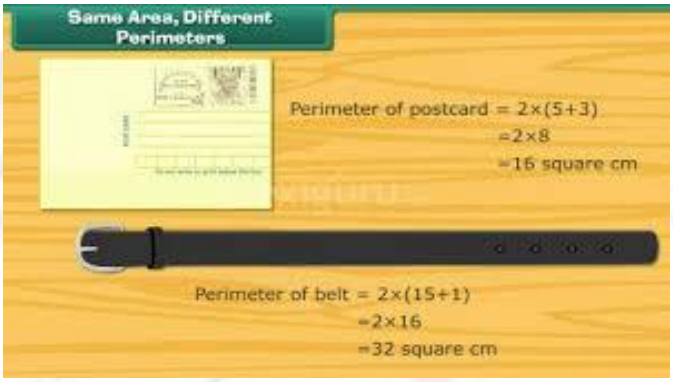
= $\frac{375}{15}$

= 25 m

Width = 25 m

❖ **Activity:**

- **Find the area of postcard and stamps.**



Ch- 12 smart charts

❖ **Key points to remember:**

- Introduction
- Show the tally mark
- Look the bar graph and answer the question.
- Pie chart
- Activity

❖ **Introduction:**

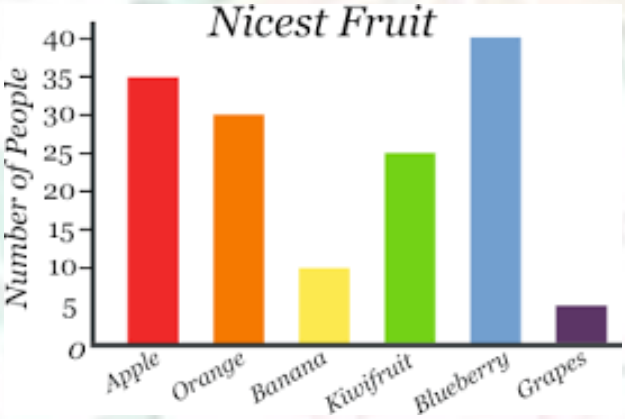
- **Data:** Data is collection of facts or information.

- **Tally marks are 𝍸.**

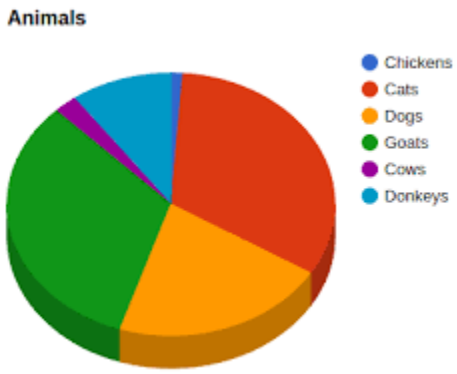
Example:

1	𝍸	6	𝍸 𝍸
2	𝍸 𝍸	7	𝍸 𝍸 𝍸
3	𝍸 𝍸 𝍸	8	𝍸 𝍸 𝍸 𝍸
4	𝍸 𝍸 𝍸 𝍸	9	𝍸 𝍸 𝍸 𝍸 𝍸
5	𝍸	10	𝍸 𝍸

- **Bar graph: A bar graph can be defined as a chart or a graphical representation of data, quantities or numbers using bars or strips.**



- **Pie – charts:** A pie chart is a circle chart which is divided into slices to illustrate numerical proportion.



❖ **Show the tally marks:**

[A]

Animals	Cats	Dogs	Rabbits	Cows	Parrots	Goats	Squirrels
Numbers	25	10	9	13	15	20	3

Answer

Animals	Tally Marks	Numbers
Cats	𝍸 𝍸 𝍸 𝍸 𝍸	25
Dogs	𝍸 𝍸	10
Rabbits		9
Cows		13
Parrots		15
Goats		20
Squirrels		3

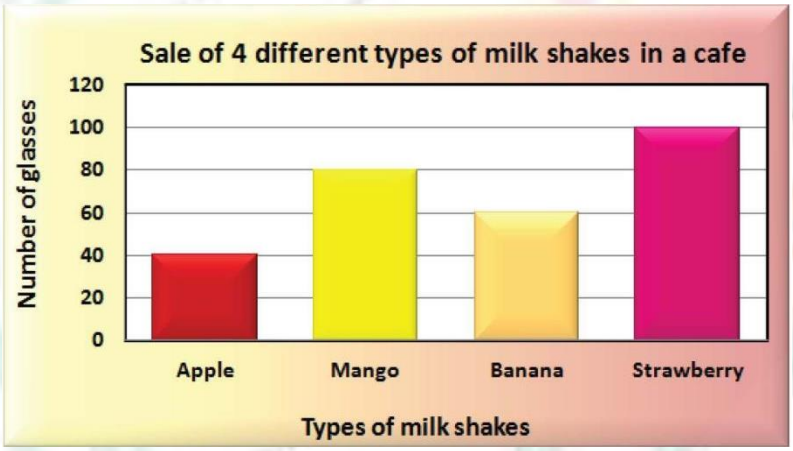
[B] (Hw)

Juice	Apple	Orange	Pineapple	Guava	Litchi	Mixed fruit
Number	24	26	19	8	14	24

Answer

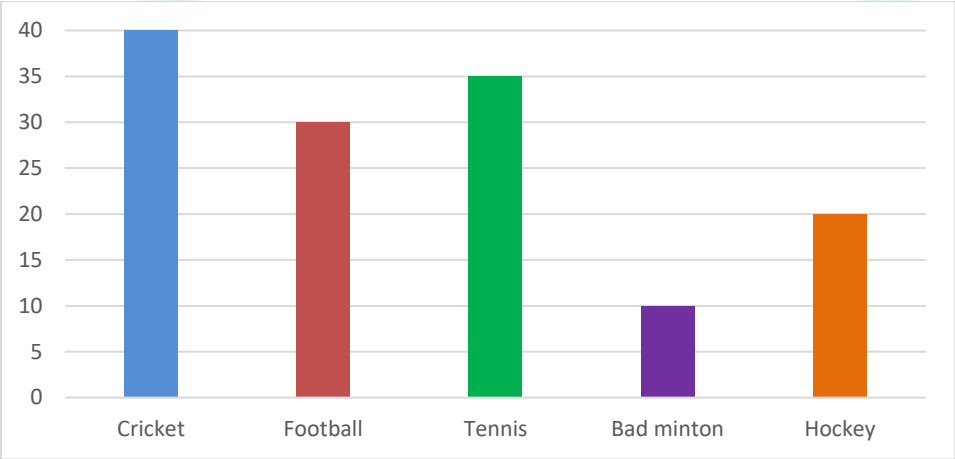
Juice	Tally Marks	Numbers
Apple		24
Orange		26
Pineapple		19
Guava		8
Litchi		14

❖ **The graph below shows the sale of 4 different milk shakes in a café on a Sunday see the graph and answer the question:**



a) If a glass of banana shakes costs Rs 15, how much did the café owner earn from the sale of banana shakes? **15 ×60 = 900**
b) Which shake is preferred by most number of children? **Strawberry**
c) Least favorite juice is **Apple**
d) Find the total number of shakes sold on Sunday.**40 + 80 + 60 + 100 = 280**
e) What is difference between apple shake and mango shake sold? **80 – 40 = 40**

- **Look the bar graph below and answer the question:**



a) Which sport is played by the maximum number of students?

Ans: Cricket

b) How many students play football?

Ans: 30 students

c) How many students go for tennis?

Ans: 35 students

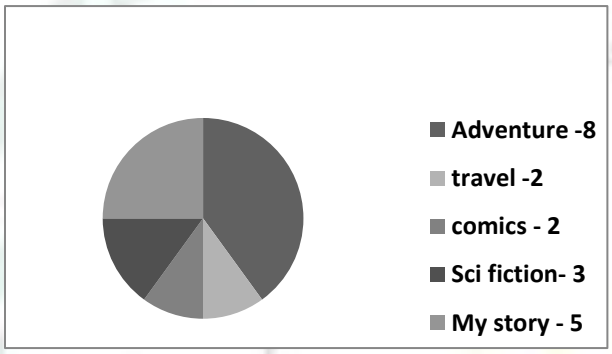
d) Which game is played the least by the students?

Ans: Bad Minton

e) How many like to play hockey?

Ans: 20 students

❖ **Look at the data shown in the pie chart given below. Answer the following questions**



a) The survey was carried out on **<u>20</u>** children.
b) Adventure books are read by **<u>8</u>** children.
c) More number of children read **<u>My story</u>** and **<u>adventure</u>** books than Science Fiction.
d) The same number of children read **<u>comics</u>** and **<u>travel</u>** books.

❖ **Activity:**

- **Make tally mark of what your friends like to do after school.**
  For example

What they like to do after school	*Number of children*
Watching TV	2
Playing football	3
Reading story books	2
Cycling	1
Playing indoor games	1
Doing homework	1

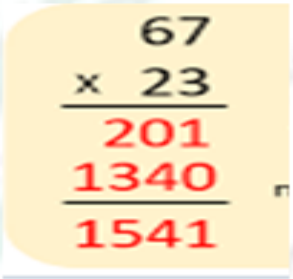
Ch-13 Ways to multiply and divide

Key points to remember:

- Multiplication
- Do these division and check your results.
- Fill in the blanks
- Word problems
- Activity

❖ **Multiplication:**

Example In Class 4 you learn 2- digit multiplication. In class 5 we learn 3 digit multiplication.



$$\begin{array}{r} 67 \\ \times\ 23 \\ \hline 201 \\ 1340 \\ \hline 1541 \end{array}$$

$$\begin{array}{rrrrr} & & 6 & 8 & 7 \\ & & \times & 2 & 3 \\ \hline & 2 & 0 & 6 & 1 \\ + & 1 & 3 & 7 & 4 & 0 \\ \hline & 1 & 5 & 8 & 0 & 1 \end{array}$$

a) 7747 × 696

$$\begin{array}{r} 7747 \\ \times\ 696 \\ \hline 46482 \\ +\ 697230 \\ +\ 4648200 \\ \hline 5391912 \end{array}$$

b) 3468 × 571

$$\begin{array}{r} 3468 \\ \times\ 571 \\ \hline 3468 \\ +\ 242760 \\ +\ 1734000 \\ \hline 1980228 \end{array}$$

c) 2429 × 482

$$\begin{array}{r} 2429 \\ \times\ 482 \\ \hline 4858 \\ +\ 194320 \\ +\ 971600 \\ \hline 1170778 \end{array}$$

d) 5804 × 813

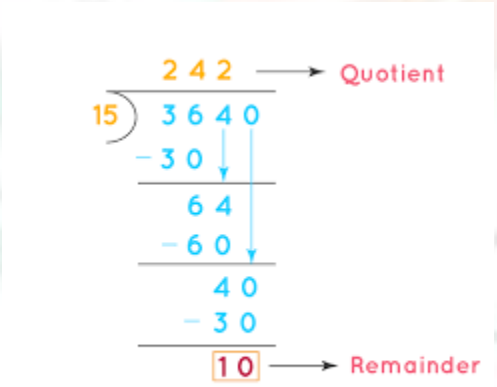
$$\begin{array}{r} 5804 \\ \times\ 813 \\ \hline 17412 \\ +\ 58040 \\ +\ 4643200 \\ \hline 4718652 \end{array}$$

e) 6329 × 721

$$\begin{array}{r} 6329 \\ \times\ 721 \\ \hline 6329 \\ +\ 126580 \\ +\ 4430300 \\ \hline 4563209 \end{array}$$

❖ **Do these division and check your result:**

a) 3640 ÷ 15



Check: Q × D + R = Dd

242 × 15 + 10 = Dd

3630 + 10 = Dd

3640 = Dd

b) 3480 ÷12

```
   290
12)3480
  -24↓
   108
  -108
   000
```

Check: Q × D = Dd

290 × 12 = Dd

3480 = Dd

c) 5281 ÷ 15

```
   352
15)5281
  -45
   78
  -75
   031
   -30
    01
```

Check: Q × D + R = Dd

352 × 15 + 1 = Dd

5280+ 1 = Dd

5281 = Dd

d) 4001 ÷ 23

```
   173
23|4001
  23
  170
  161
    91
    69
    22
```

Check: 173 × 23 + 22 = Dd

3979 + 22 = Dd

4001 = Dd

e) 2475 ÷ 11

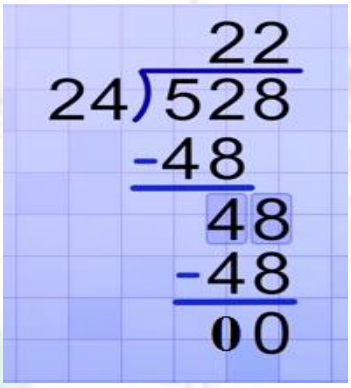
```
   225
11)2475
  -22
  ---
   27
  -22
  ---
   55
  -55
  ---
    0
```

Check: Q × D = Dd

225 × 11 = Dd

2475 = Dd

f) 528 ÷ 24



Check: Q × D = Dd

22 × 24 = Dd

528 = Dd

g) 770 ÷ 22

```
   35
22)770
  -66
  ---
  110
 -110
 ----
    0
```

Check: Q × D = Dd

35 × 22 = Dd

770 = Dd

❖ **Fill in the blanks:**

1) The answer in multiplication is the **product.**
2) 934 × **726** = **934**× 726
3) **9728**× 1 = 9728
4) 9869 ×**0** = 0
5) **135**× (297 × 517) = (517 ×**297**) × 135
6) 8304 × **1** = 8304
7) Quotient ×**divisor** + remainder = dividend

❖ **Word problems:**

1) **945 chocolates are to be distributed among 63 students. Find the number of chocolates each student will get.**

Solution: Total number of chocolates = 945

No of students = 63

The number of chocolates each student gets = 945 ÷ 63 = 15

```
     1 5
   ------
63 | 9 4 5
   - 6 3
   -----
     3 1 5
   - 3 1 5
   -------
     0 0 0
```

15 chocolates each student will get.

2) **Soham drinks 8 glasses of water every day. How many glasses he drinks in one year?**

Solution: Total glasses of water Soham he drinks = 8

No of days in one day = 365

No of glasses in one year = 365 × 8

```
    3 6 5
  x     8
  -------
  2 9 2 0
```

Soham drinks 2920 glasses of water in one year.

3) **Anita bought a battery. She read on it life 2000 hours. She uses it throughout the day and night. How many days will the battery run?**

Solution: life of battery = 2000 hours.

Total hours in the day and night = 24

The battery will run = 2000 ÷ 24

```
      83
   ┌─────
24 │2000
 -  192
   ─────
    0080
  -   72
  ──────
      08
```

The battery will run 83 days and 8 hours.

4) **Garima has Rs 500 with her. She wants to buy milk whose cost is Rs50 per litre. How many litters of milk can she buy?**

Solution: Total money Garima has = Rs500

Cost of milk per litre = Rs50

Litters of milk she can buy = 500 ÷ 50

= 10 litters

Garima can buy 10 litters of milk.

❖ **Activity:**

- **Look for the pattern and take this forward.**

(0×9)	+	1	=	1
(1×9)	+	2	=	11
(12×9)	+	3	=	111
(123×9)	+	4	=	_____
(1234×9)	+	5	=	_____
(12345×9)	+	6	=	_____