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STUDENTS
SK**I**LLS
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by Expert
Mathematicians

Mathematics
Maths Mela

Integrated, Pedagogy (Art and Culture)
Fun Time, SEL, SDG, Subject Link

Class
3

Alok Airan
[M.Sc. Maths,]
[PGDMM, PGDIM]

TICKET

SHOOTING GAME

POPCORN

New Edition

Contents

1 What's in a Name?

1. **Write the number names for each of the following:**

   a. 67 = ...

   b. 28 = ...

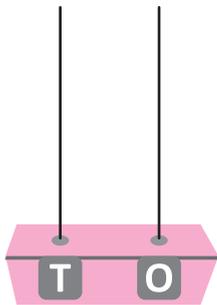   c. 56 = ...

   d. 36 = ...

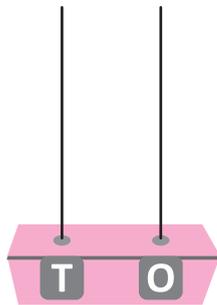2. **Write the numerals for each of the following:**

   a. Sixty-nine

   b. Fifty-six

   c. Eighty-four

   d. Ninety-seven

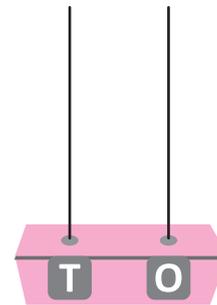3. **Represent the given numbers on the abacus and write the number name in the box:**
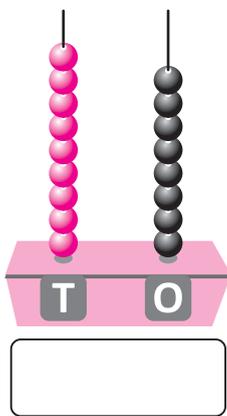
   a. 28

   b. 68

   c. 65

4. **Count the beads and write the number in the box:**

   a.

   b.

   c.
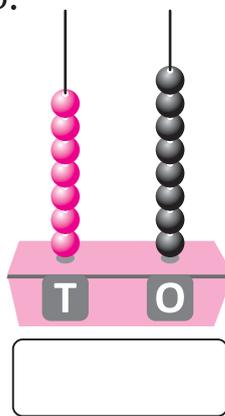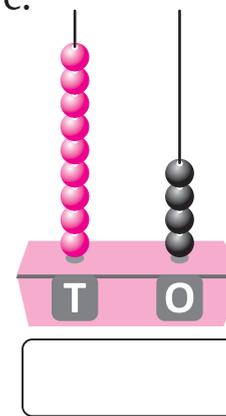
5. Complete the following number grids by filling the missing numbers:

51	52			55					60
					66			69	
				75			78		
			84			87			
91					96				100

6. Counting by fives, write the numbers starting from:

a. 30 ☐ ☐ ☐ ☐   b. 50 ☐ ☐ ☐ ☐

7. Counting by tens, write the numbers starting from:

a. 20 ☐ ☐ ☐ ☐   b. 35 ☐ ☐ ☐ ☐

8. Counting by twenties, write the numbers starting from:

a. 50 ☐ ☐ ☐ ☐   b. 85 ☐ ☐ ☐ ☐

9. Counting by fours, write the numbers starting from:

a. 18 ☐ ☐ ☐ ☐   b. 36 ☐ ☐ ☐ ☐

10. Counting by eights, write the numbers starting from:

a. 24 ☐ ☐ ☐ ☐   b. 35 ☐ ☐ ☐ ☐

CHALLANGE

Who am I?

My ones digit is four. My tens digit is 4 more than my ones. My hundreds digit is 2 less than my ones digit. I am the number

...................., ..., ...

Date : _____

Remarks : _____

Teacher's Sign : _____

2 Toy Joy

Worksheet 2.1

1. **Look the shape and fill in the blanks:**
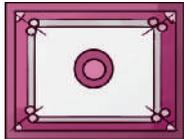
a.   It is in the shape of ....

b.   It is in the shape of ....

c.   It is in the shape of ....

d.   It is in the shape of ....

2. **Write the number of triangles in each of the following figures:**
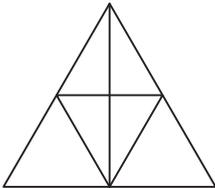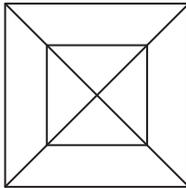
a.   b.   c.
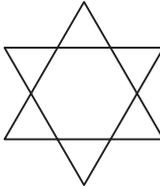
3. **Write the number of squares in each of the following figures:**

a.   b.   c.
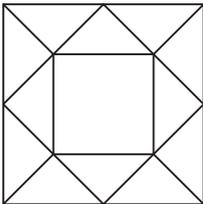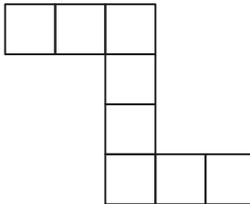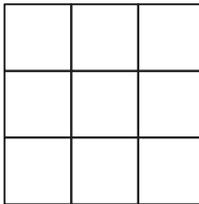
Solid Shapes

An object that occupies space is called a solid. Solids are 3-dimensional objects. Cuboid, cube, cylinder, cone, sphere etc. are 3-D objects so these are called solids.
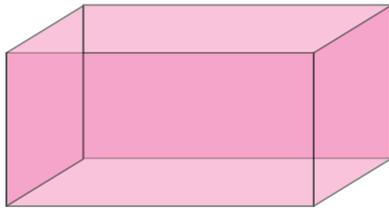
Cuboid
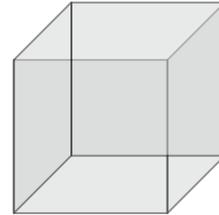
Cube
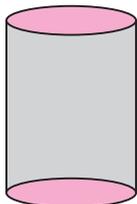
Cylinder
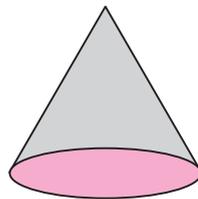
Cone

Sphere

Worksheet 2.2

Some practical examples of solid objects that we use in our daily life, identify their shapes:
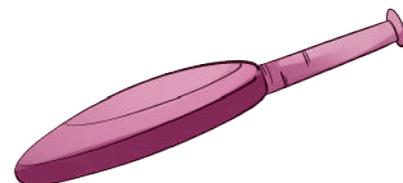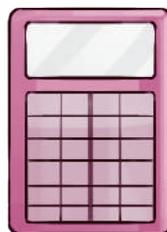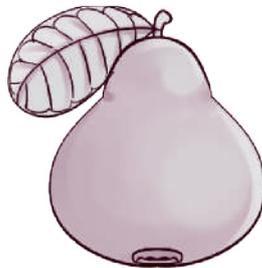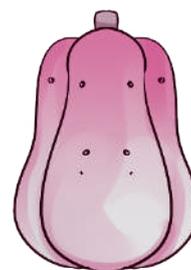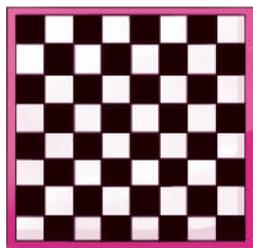
Plane and Curved Surface

Solids have different types of surfaces. Some solids have plane surfaces while some solids have curved surfaces and some solids have both plane and curved surfaces.

Cuboid and **cube** have plane surface only. Book, box etc. have plane surface only.

Plane surface
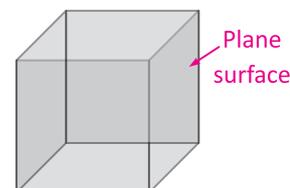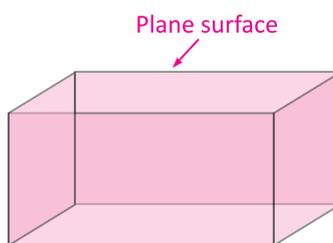
Plane surface

Sphere like ball, globe, orange etc. have curved surface only.

Cylinder and cone have both plane and curved surfaces.

Plane Surface

Curved Surface

Plane Surface

Curved Surface

Plane Surface
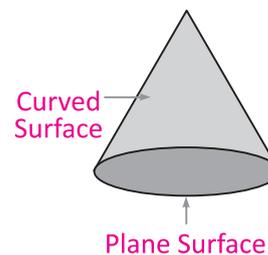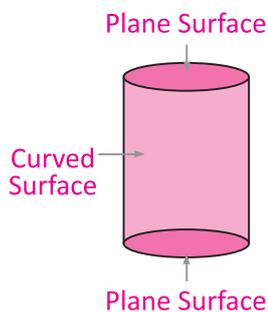
Faces, Edges and Vertices of Solids

Cuboid

A cuboid has

6 rectangular faces,

12 edges and 8 vertices.

Opposite faces of a cuboid and identical (equal).
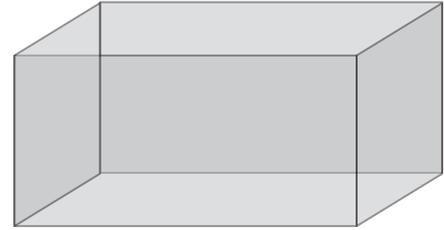
- Surfaces of a solid is called face.
- An edge is formed when two surfaces of faces meet.
- The point where two edges meet is called vertex (corner).

Cube

A cube has

6 square faces,

12 edges and 8 vertices.

All faces of all square are identical (equal).
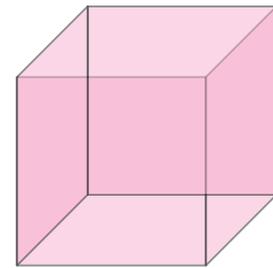
Cylinder

A cylinder has

1 curved surface and

2 plane surfaces.

It has 2 curved edges and no vertex.

Plane Surface

edge

Curved Surface
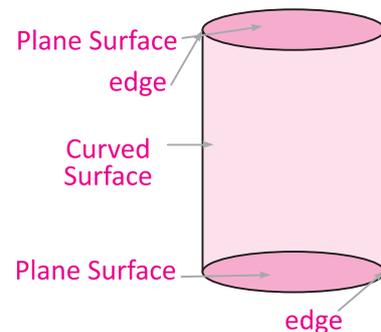
Plane Surface

edge

Cone

A cone has

1 curved surface and

1 plane surface.

It has 1 curved edge and 1 vertex.

Vertex

Curved Surface

Plane Surface
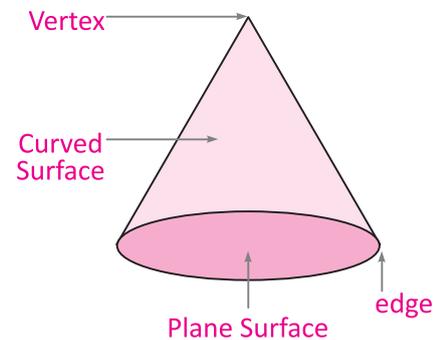
edge

Sphere

A sphere has only
1 curved surface.
It has no edge and no vertex.
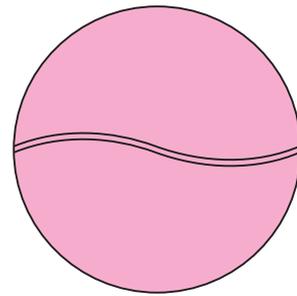
Comparative Table of Faces, Edges and Vertices

Solid	Faces (surfaces)	Edges	Vertices
Cuboid	6 rectangular faces	12	8
Cube	6 square faces	12	8
Cylinder	1 curved surface and 2 plane surfaces	2	0
Cone	1 curved surface and 1 plane surface	1	1
Sphere	1 curved surface	0	0
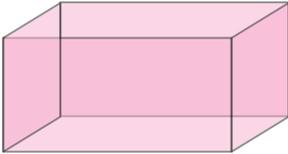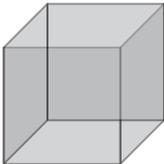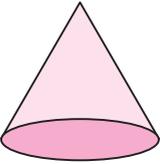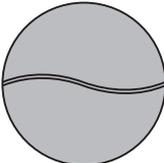
Worksheet 2.3

1. **Write the curved surface and plane surface for each of the following figures:**

   a.

   b.

   c.

   d.

   e.

   f.
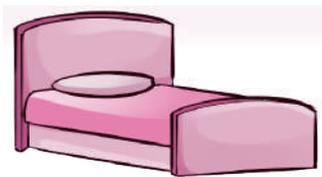
2. **Write the name of three objects from your surroundings that have only plane faces:**

   a. ....   b. ....   c. ....

3. **Write the name of three objects from your surrounding that have only curved faces:**

   a. ....   b. ....   c. ....

4. **Write the name of three objects from your surroundings that have both curved and plane faces:**

   a. ....   b. ....   c. ....

5. **Fill in the blanks:**

   a.   A cuboid has .... faces and .... vertices.

   b.   A cylinder has .... surfaces and .... edges.

c. A cone has .... surfaces and .... vertex.

d. A sphere has .... surface.

Mental MATHS

1. Opposite faces of .... are identical.

2. All faces of .... are identical.

3. Opposite faces of a cylinder are ....

4. A .... has 1 curved and a plane surface.

5. The shape of the globe like a ....

MULTIPLE Choice Questions

Tick (✓) the correct option:

1. A line-segment has ....
   a. one end point
   b. two end points
   c. four end points
   d. none of these

2. A .... is formed when two surfaces meet.
   a. edge
   b. vertex
   c. corner
   d. none of these

3. A ray ....
   a. has one end point
   b. can be extended in one direction
   c. both a and b
   d. all of these

4. A solid can have ....
   a. plane
   b. curved
   c. both a and b
   d. none of these

5. Tangram has ....
   a. 4 pieces
   b. 6 pieces
   c. 7 pieces
   d. 8 pieces

Double Century

Worksheet 3.1

1. **Fill in the blanks:**

Making 100	Number sentence
	80 and 20 makes 100
	__ and __ makes 100
	__ and __ makes 100

Chinku made 100 by jumping on 75 and then 25 more.
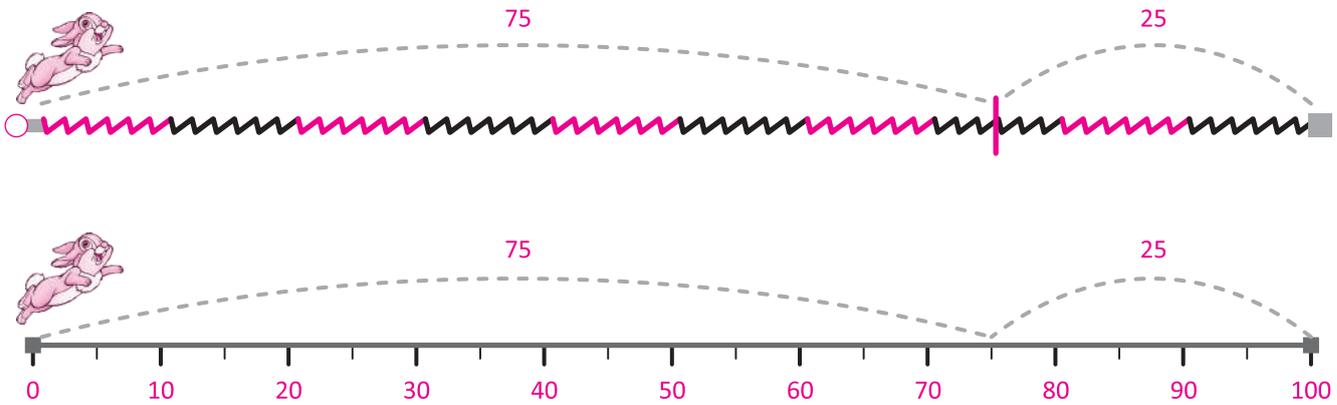
Make 100 by different jumps on this number line.
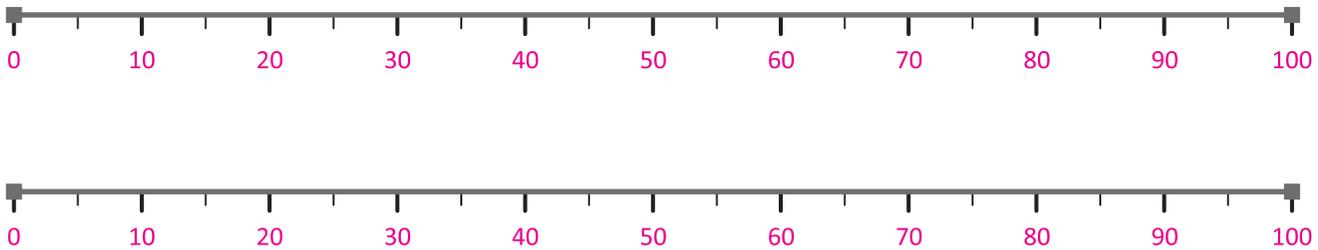
2. Use matchstick bundles and a *ginladi* to make 100 in different way. Fill in the table below.

70 and 30 makes	55 and .... makes 100.
.... and 35 makes 100.	.... and 65 makes 100.
.... and .... makes 100.	.... and .... makes 100.

3. Write numbers in the blank spaces inside the flower petals so that the numbers in each petal add up to 100.
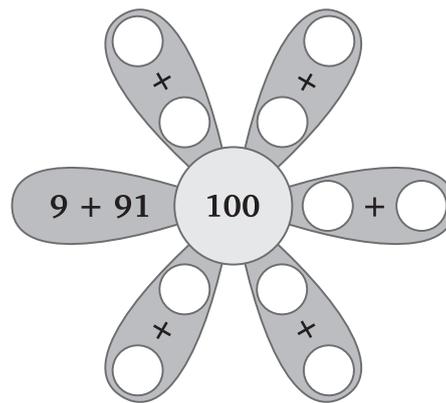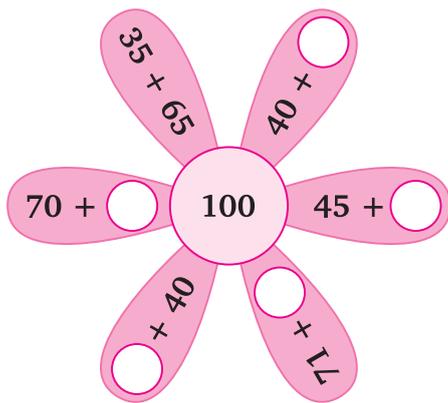
Worksheet 3.2

Let's observe the table and learn to write numbers beyond 100. Fill in the blank spaces:
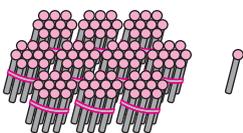
	100 and 1 makes One Hundred one	101
	100 and 2 makes One Hundred two	
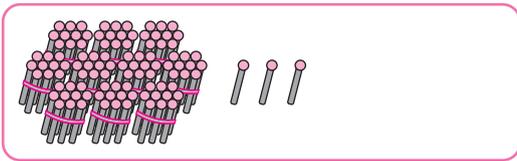
⁄⁄⁄	100 and 3 makes One Hundred three ☐
⁄⁄⁄⁄	100 and 4 makes One Hundred 104
⁄⁄⁄⁄⁄	100 and 5 makes One Hundred .... ☐
⁄⁄⁄⁄⁄⁄	100 and 6 makes One Hundred 106
⁄⁄⁄⁄⁄⁄⁄	100 and 7 makes One Hundred seven ☐
⁄⁄⁄⁄⁄⁄⁄⁄	100 and 8 makes One Hundred .... ☐
⁄⁄⁄⁄⁄⁄⁄⁄⁄	100 and 9 makes One Hundred 109
	100 and 10 makes One Hundred ten ☐
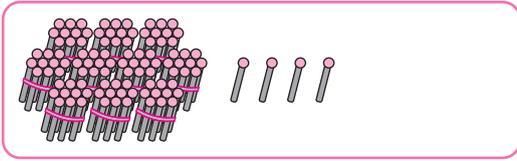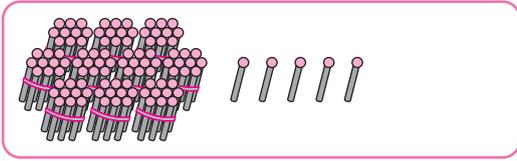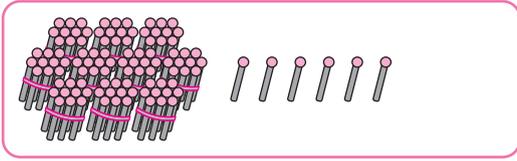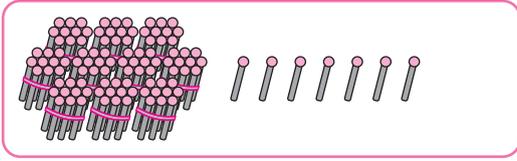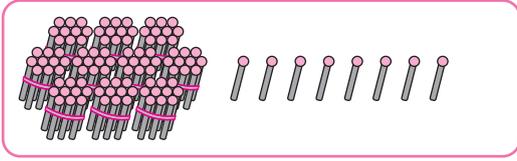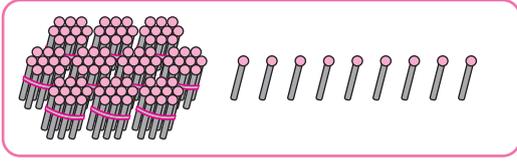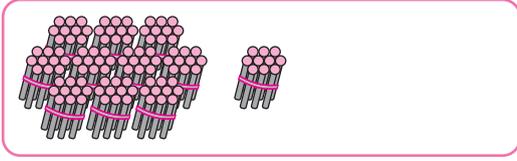
Fill the blank spaces on the number line given at the edge of the page.

Number line (edge): 111 — ☐ — ☐ — 115 — ☐ — ☐ — 118 — ☐ — ☐ — 121

Number line (bottom): 101 — ☐ — 103 — ☐ — ☐ — ☐ — 107 — ☐ — ☐ — 110
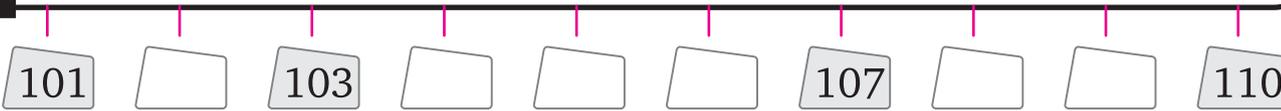
Worksheet 3.3

1. Let's continue making numbers above 100 using matchstick bundles and loose sticks.

    In the table given below, identify the bundles and loose sticks and write the corresponding numbers.

Bundles and Sticks	Matchstick bundles			Number
	100	10s	1s	
	1	3	4	134
				122
				114
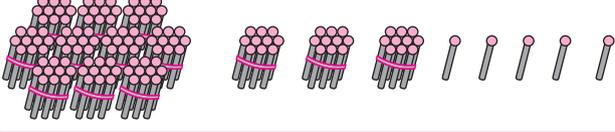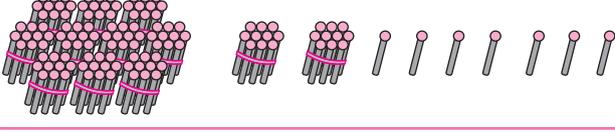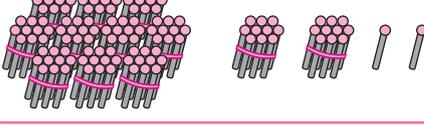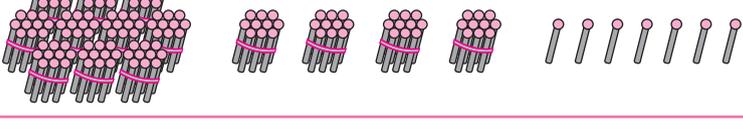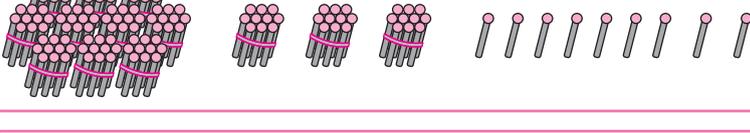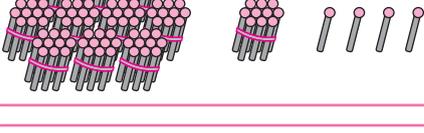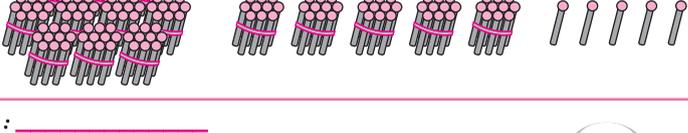
2. Match the numbers with the correct bundles and loose sticks.
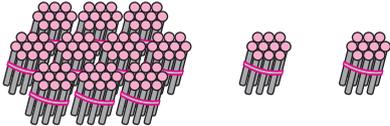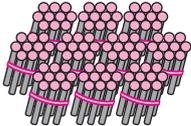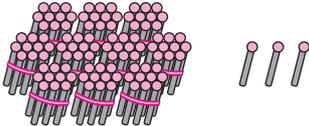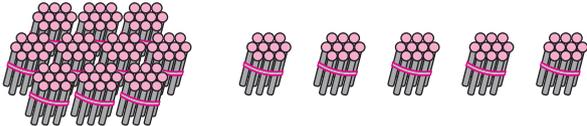
103	♦
118	♦
120	♦
100	♦
150	♦

3. Show the following numbers on the number line below.

a. Place an arrow on 135. b. Make a tree on 115.

c. Make a school symbol on 155. d. Put a danger symbol 148.

Jumping Game

Worksheet 3.4

1. Draw jumps of 5 on the number line and write the numbers on the number line in the given space.
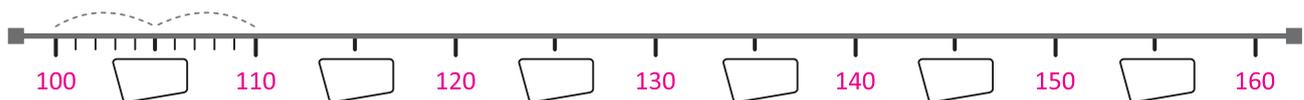
2. Continue jumps of 10 and write the missing numbers on the given number line.

| 100 | 110 | | | | | | | | | |
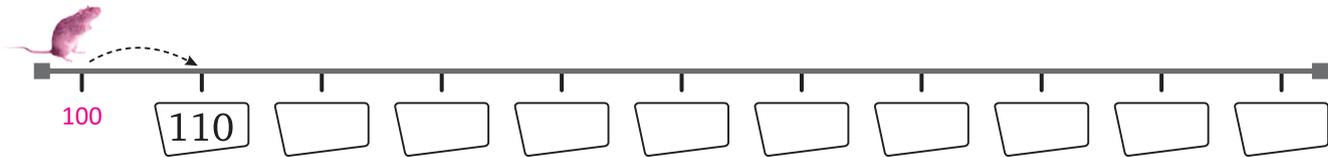
3. Show at least two different ways of making the following numbers.

a. use matchstick bundles to make 145.

b. make 135 using a bindi.

c. make 180 on a number line.

4. Fill in the empty boxes appropriately.

Number	Pictorial Form	Matchstick Bundles			Number Sentence
		100	**10s**	**1s**	
116					100 and 16 more
					100 and 42 more
182					
176					
					25 more than 150
		1	9	0	

5. **Fill in the table:**

Predecessor	Number	Successor
	159	
	138	
	197	
	165	
	149	

- 1 less than a number is called predecessor.
- 1 more than a number is called successor.

6. **Mark the following numbers on the number line.**

a. 108, 114, 127, 138, 147

```
 100    110    120    130    140    150
```

b. 156, 168, 175, 187, 199

```
 150    160    170    180    190    200
```

c. 123, 145, 156, 178, 195

```
 100    120    140    160    180    200
```
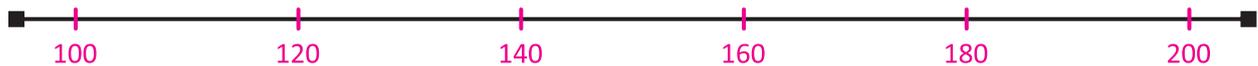
d. 352, 425, 472, 520, 572

```
 350    400    450    500    550    600
```

e. 415, 425, 453, 465, 482

```
 400    420    440    460    480    500
```

f. 505, 516, 524, 532, 548

```
 500    510    520    530    540    550
```

Worksheet 3.5

Fill the missing numbers on the board.
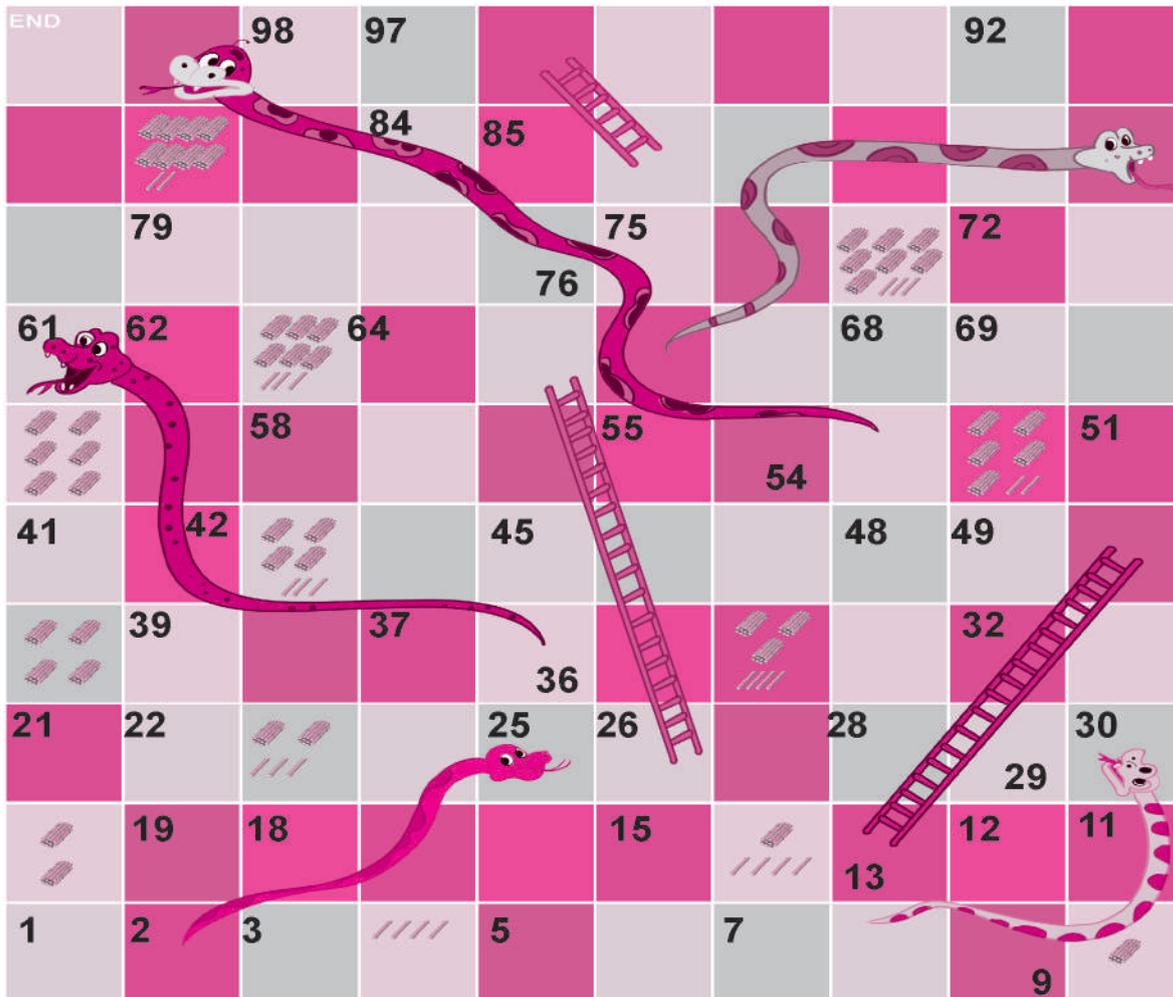
Answer the following on the basis of the Snakes and Ladders board.

1. Which number will you reach if you take the ladder from 13?

2. If you are on the snake at number 25, which number will you reach?

3. You are standing on 96. Which number on the die will take you to the snake's mouth?

4. Show the number written on the tail of the longest snake using bundles and loose sticks.

4 Vacation with My Nani Maa

Manish and Sneha have got their coins to show to their friends and nani Maa

> Look nani Maa,
> We have collected
> 15 coins.

> Let me give you
> some more. Here are
> 10 more coins.

How many coins do they have now?

Manish, Sneha and Nani Maa figured out the answer in three different ways using their ginladi:
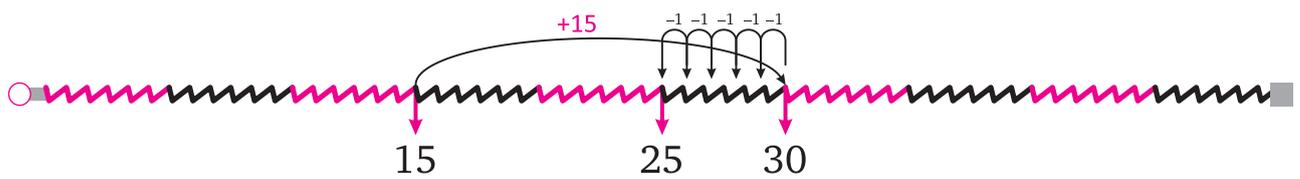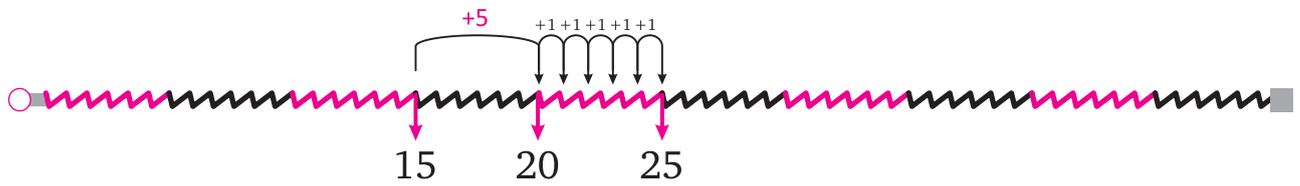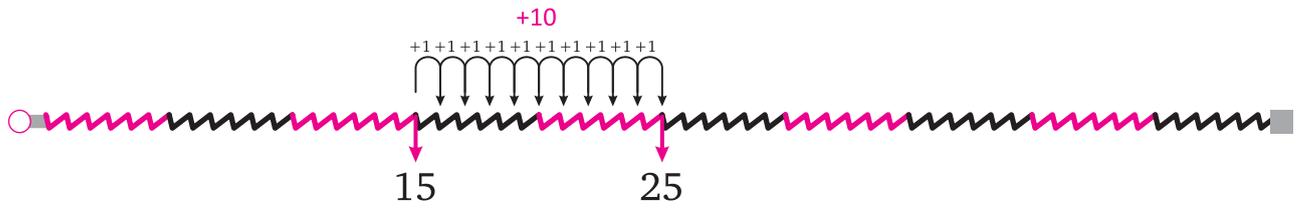
$$15 \text{ coins} + 10 \text{ coins} = 25 \text{ coins} \quad \text{or} \quad 15 + 10 = 25$$
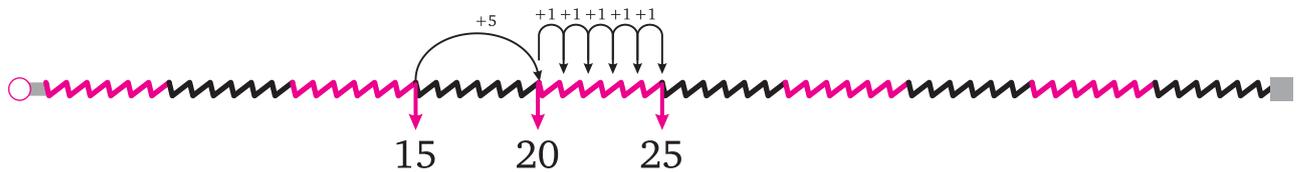
$$15 \text{ coins} + 5 \text{ coins} + 5 \text{ coins} = 25 \text{ coins} \quad \text{or} \quad 15 + 5 + 5 = 25$$

Date : _____

Remarks : _____

Teacher's Sign : _____

Worksheet 4.1

Manish and Sneha have 18 coins. Nani Maa's brother gives them his collection of 15 coins. How many coins do they have now.

18 coins + ☐ coins = ☐ coins   *or*   18 + ☐ = ☐

They now have 33 coins. Manish and Sneha count and find that they have 22 coins with faces of famous persons and the remaining with pictures of monuments.

How many coins with pictures of monuments do they have.

−7   −1 −1 −1 −1

22   29   33
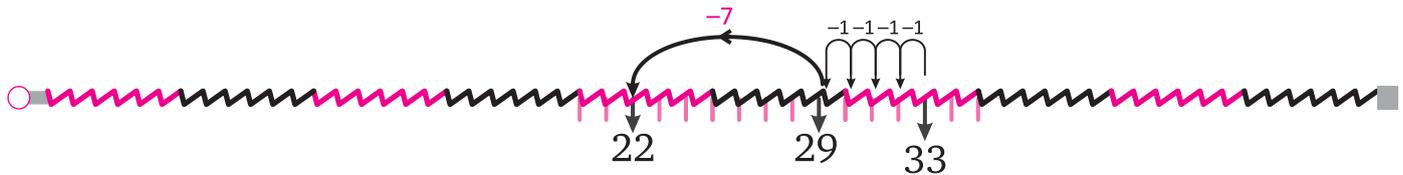
They have 11 coins with pictures of monuments. Can you find other ways of doing it?

(33) coins − (22) coins = ◯ coins

or   (22) coins + ◯ coins = (33) coins

Nani Maa, we have 33 coins now.

Next time when we come, we will have 58 coins.

How many more coins will they need? Figure it out using the number line.

☐ coins + ☐ coins = ☐ coins   *or*   ☐ + ☐ = ☐

Worksheet 4.2

1. **Solve the following:**

 a. 24 + 6 b. 33 + 12 c. 23 – 5 d. 32 – 15

 a. ⊙▭〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰▪

 b. ⊙▭〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰▪

 c. ⊙▭〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰▪

 d. ⊙▭〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰▪

2. A rabbit is jumping on the number line. He is at 5. He wants to jump 10 beads at a time. Mark the beads that he will jump on and write the numbers.

⊙▭〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰▪
    5
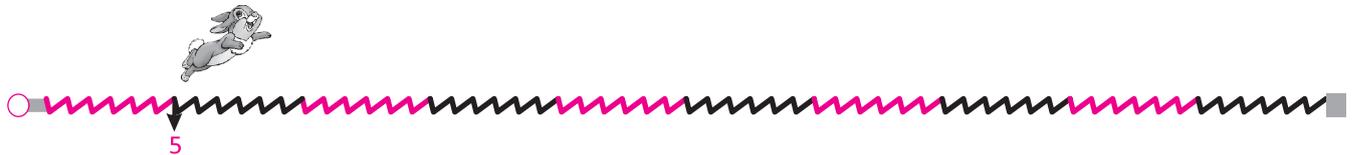
3. The frog again jumps forward by 8 each time. Mark all the places where the frog will land.

⊙▭〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰▪
    18
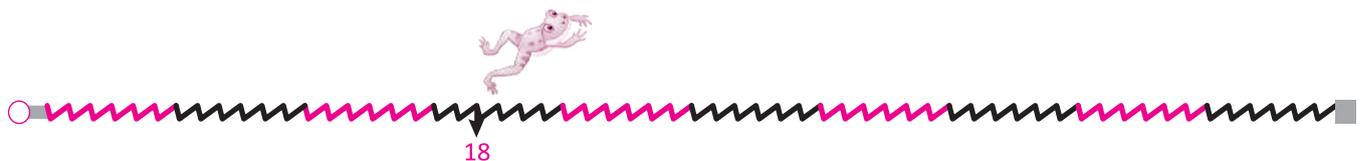
4. The frog jumps backward by 12 each time. Mark all the beads that the frog will jump on and write numbers.

⊙▭〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰〰▪
                                                    60
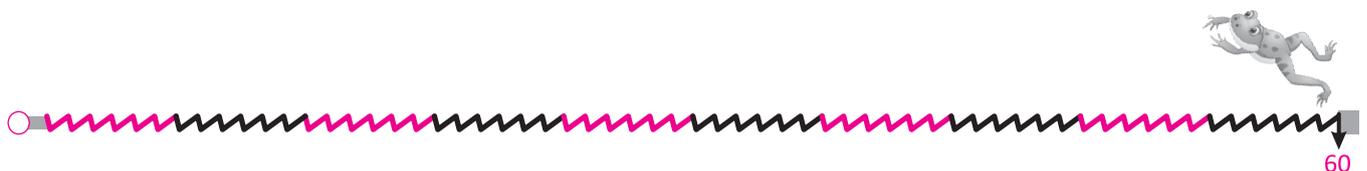
5. Fill in the tables by jumping as instructed.

Jump 5

24	46	77
29		72
	56	

Jump 6

38	49	73
44		67
	61	

Jump 9

19	12	93
28		84
	39	

PLAY ZONE

Adding the Subtracting Smartly with the Number Grid

Let us play a grid game. Each player takes turns rolling two dice to make a two-digit number, and moves the counter by the number they have made. They can choose to move forward or backward. The first to reach a number between 91 and 100 is the winner!

100	99	98	97	96	95	94	93	92	91
81	82	83	84	85	86	87	88	89	90
80	79	78	77	76	75	74	73	72	71
61	62	63	64	65	66	67	68	69	70
60	59	58	57	56	55	54	53	52	51
41	42	43	44	45	46	47	48	49	50
40	39	38	37	36	35	34	33	32	31
21	22	23	24	25	26	27	28	29	30
20	19	18	17	16	15	14	13	12	11
1	2	3	4	5	6	7	8	9	10

Teaching Tips

Encourage children to add two numbers on the grid by playing the game. If you can't go forward, move backward. If none, roll again.

Manish and Sneha find some puzzles that Nani Maa had solved.

Observe the number. What do you notice?

Fill the boxes below. In each puzzle, all numbers 1-9 are there. The numbers in each row add up to the number in the box on the right. the numbers in each column add up to the number in the box below:

5	2	8	15
3	1	6	10
9	4	7	20
17	7	21	

	5	8	16
			22
1		4	7
11	16	18	

	3		12
	5		15
	7	4	18
7	15	23	

		6	10
			19
		9	16
10	12	23	

Nani Maa puts potatoes and carrots in a box and writes 100 on it.

> I remember she had put 75 potatoes.

> We do not need count the carrots.

Manish draws the given problem.

100

75 potatoes

? Carrots
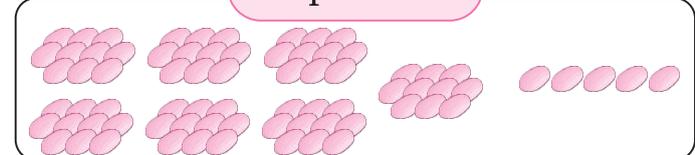
Your estimation of carrots

Circle the bundle of sticks that shows the correct number of carrots.
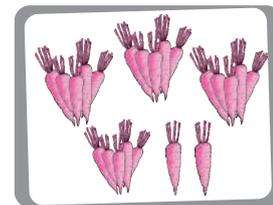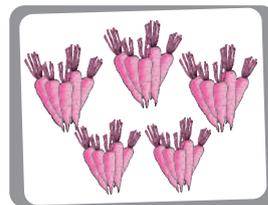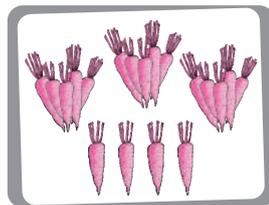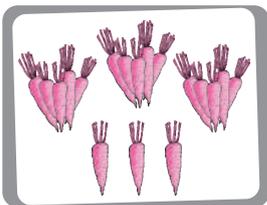
Worksheet 4.3

Solve the above problem on the number line.

```
|----|----|----|----|----|----|----|----|----|----|
0    10   20   30   40   50   60   70   80   90   100
```
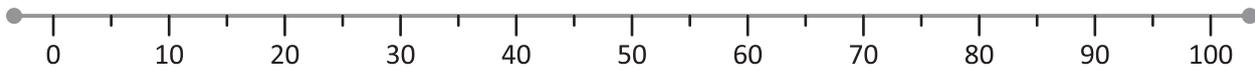
.... potatoes and .... carrots   total .... vegetables

.... + ... = 100

.... potatoes taken out from a box of 100 vegetables,

leaves .... carrots

100 − .... = ...

Solve the following problems by first drawing the box diagrams. Use matchstick bundles or a number line to find the answer.

1. Manoj sold 42 books on Monday and 53 books on Tuesday. How many books did he sell in the two days? How many more did he sell on Tuesday than on Monday?

2. In a cricket match at The Adhyyan school, Team *A* made 48 runs before lunch and 72 runs after lunch. How many total runs did they make.

3. Sneha sells somosas in the school canteen. She has sold 43 samosas the first day. She sold 9 more the next day. How many samosas did she sell in these two days?

4. Meenal brings 48 plants for her terrace garden. Some plants dried up. She is left with 32 plants. How many plants dried up?

This game is to be played between two children. The first player should say a number from 1 to 10. The second player adds a number between 1 and 10 to the first player's number. The first player again adds a number from 1 to 10 to the previous sum. The player to reach 100 first is the winner. An example is given here:

Player 1 wins this Raund! Play this game with your friends.

Player 1	Player 2	Total
8		8
	9	17
7		24
	7	31
6		37
	5	42
10		52
	10	62
8		70
	9	79
7		86
	10	96
4		100

Worksheet 4.4

1. **Estimate the answer and say if it will be more or less than 100. Match with the correct one.**

> 140 – 40 is 100.
> So, 140 – 39 is more than 100.

134 – 46
20 + 51
140 – 39
199 – 80
80 + 30 + 1
156 – 55

More than 100

Less than 100

58 – 26
85 + 10 + 5
109 – 70
63 + 26
134 + 13 + 20

5 Fun with Shapes

Plane Shapes

Shapes which are formed on a plane surface are called plane shapes such as triangle, rectangle, square, circle, etc.

Triangle

A triangle has 3 sides and 3 vertices (corners).
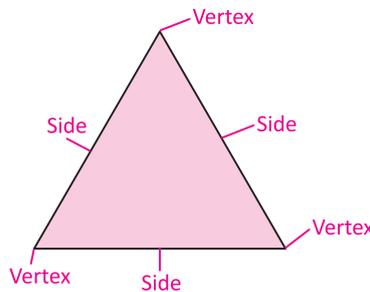
Rectangle

A rectangle has 4 sides and 4 vertices (corners) opposite sides of a rectangle are equal.
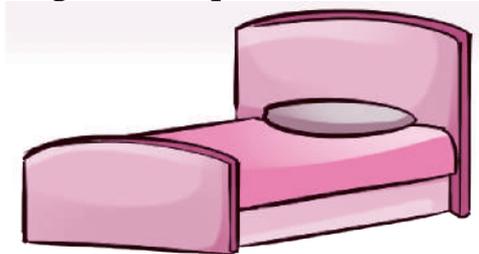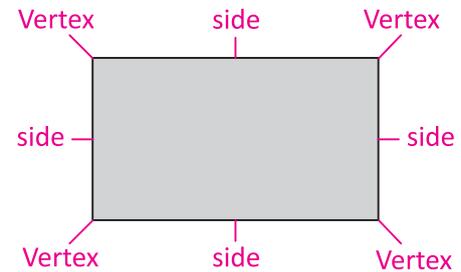
CHALLENGE!
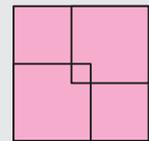
How many squares do you see?

Square

A square has 4 sides and 4 vertices (corners).
All sides of a square are equal.
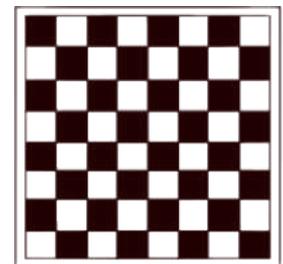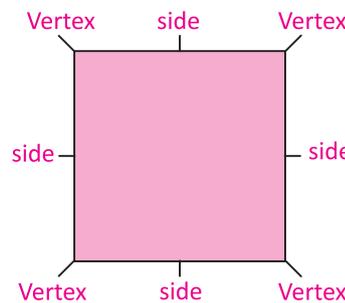
Circle

A circle has no side and no corner.
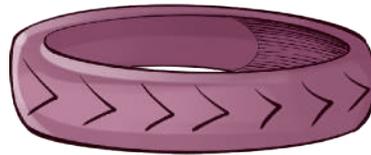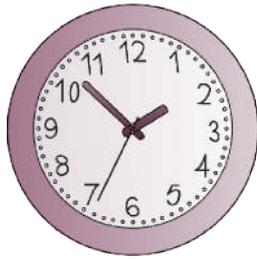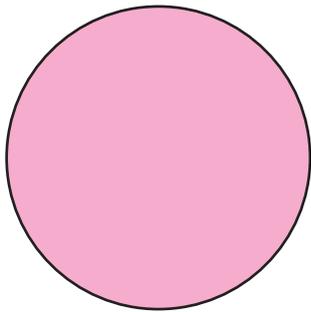
1. Identify the shapes of the following things:

a.

b.
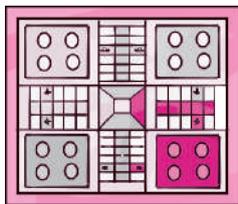
c.

d.

e.

f.

g.
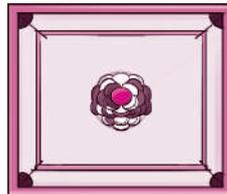
h.

2. Write the number of sides and vertices and the following figures:

a.

Sides _____

Vertices _____

b.
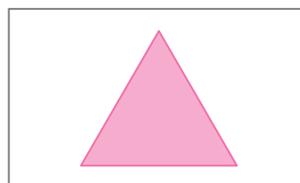
Sides _____

Vertices _____

c.
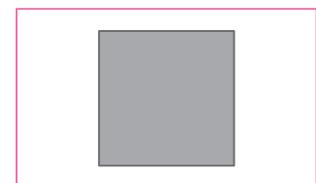
Sides _____

Vertices _____

Worksheet 5.2

1. Tick (✓) the objects which can be used to draw straight lines:

a.   b.   c.
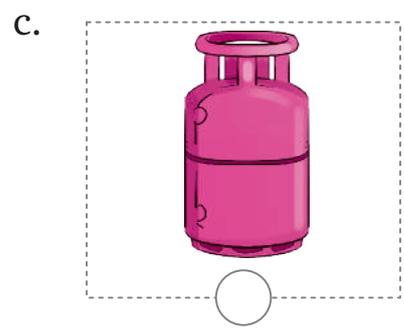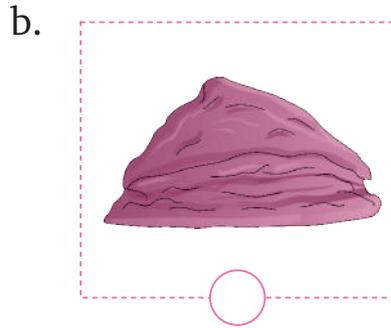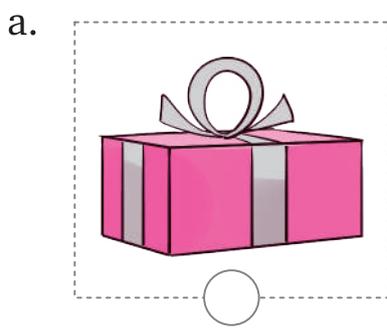
2. Tick (✓) the objects which can be used to draw curved lines:

a.   b.   c.
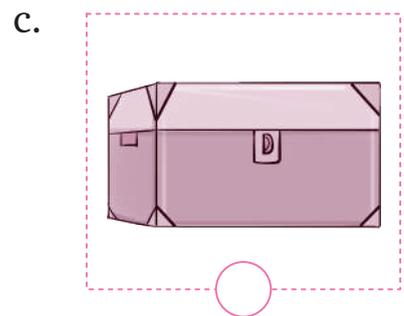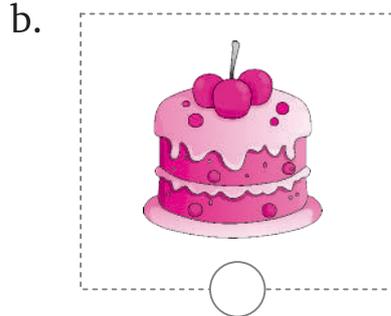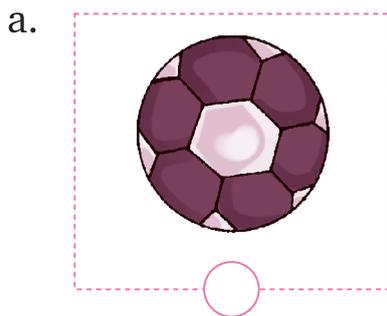
3. How many horizontal lines, vertical lines, slanting lines and curved lines are used to draw the following figures:

a.   b.

Horizontal lines	....	Horizontal lines	....
Vertical lines	....	Vertical lines	....
Slanting lines	....	Slanting lines	....
Curved lines	....	Curved lines	....

1. Construct the rectangles using the sides given below:
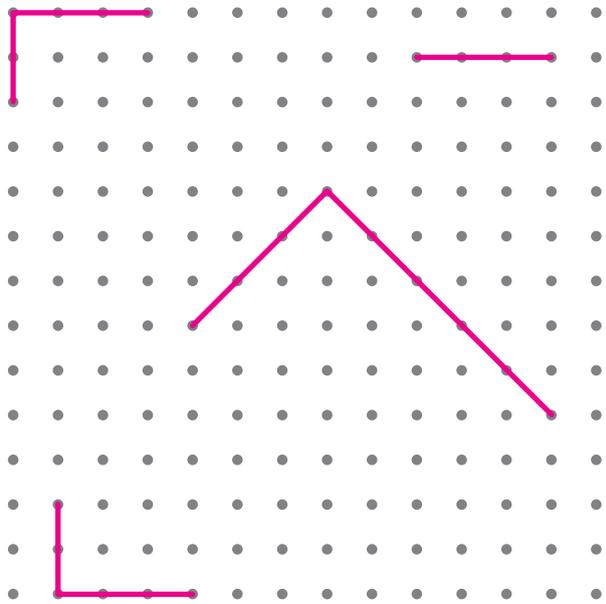
2. Draw 3 bigger rectangles around this small rectangle.
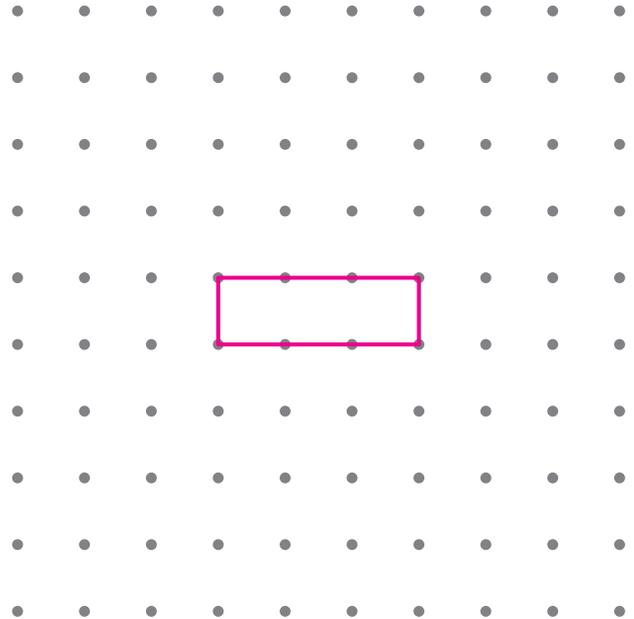
3. Count and write the number of rectangles in the following picture.
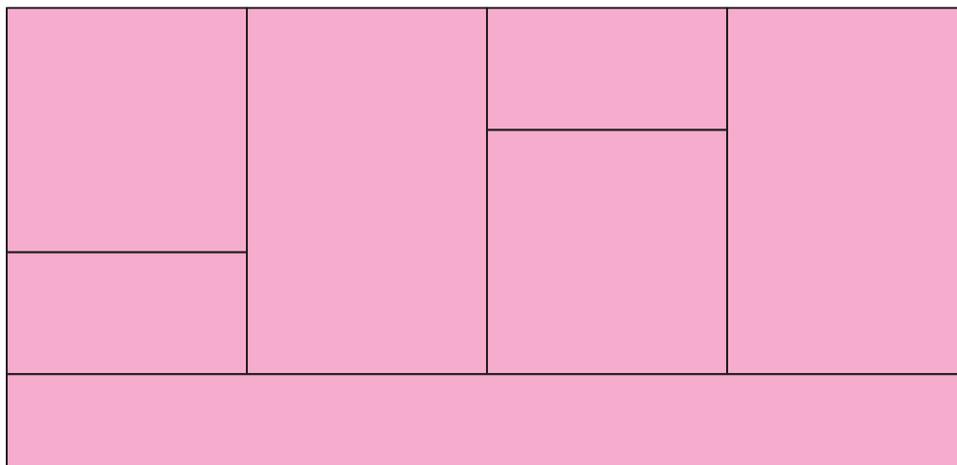
Date : _____

Remarks : _____

Teacher's Sign : _____

4. **Look at the different rectangles given below and answer the following questions.**
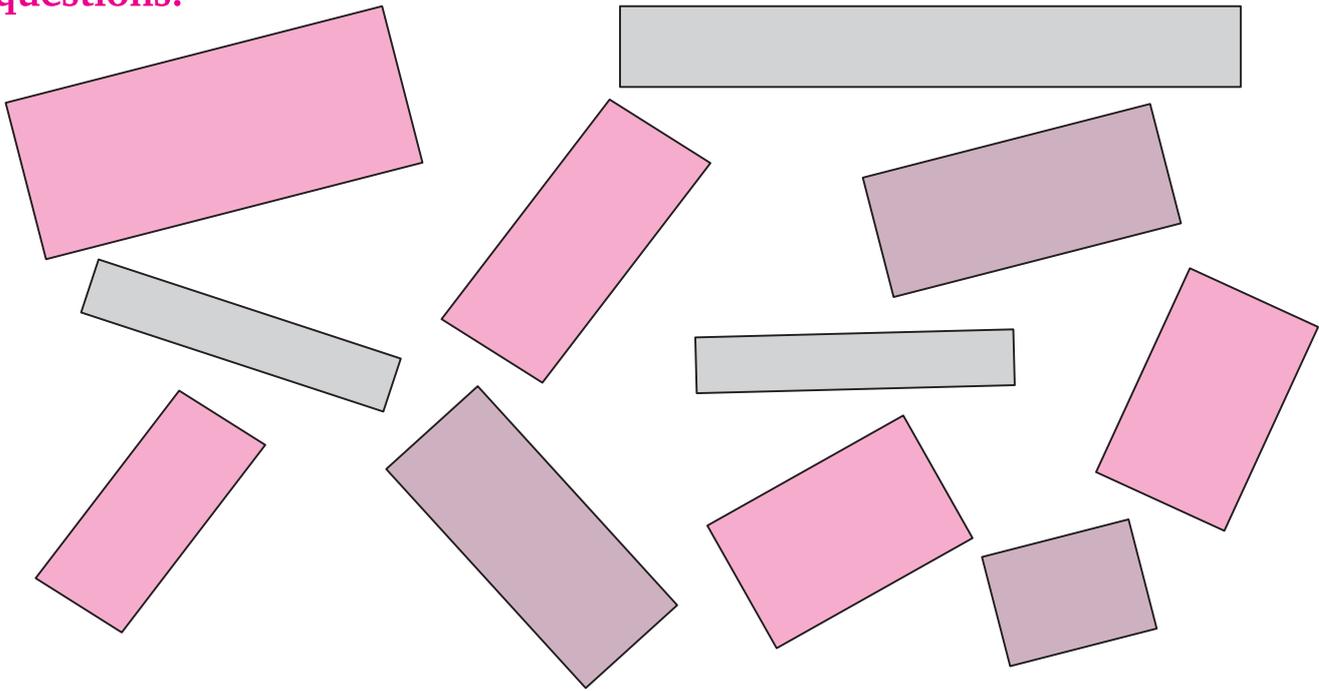
a. How many sides are there in a rectangle?

b. How many corners are there in a rectangle?

c. Are there any sides in a rectangle that are equal in length to each other?

d. What do you notice in a rectangle? Describe it in you own words.

Worksheet 5.4

1. **Here is a square. Draw 2 bigger squares around this square.**
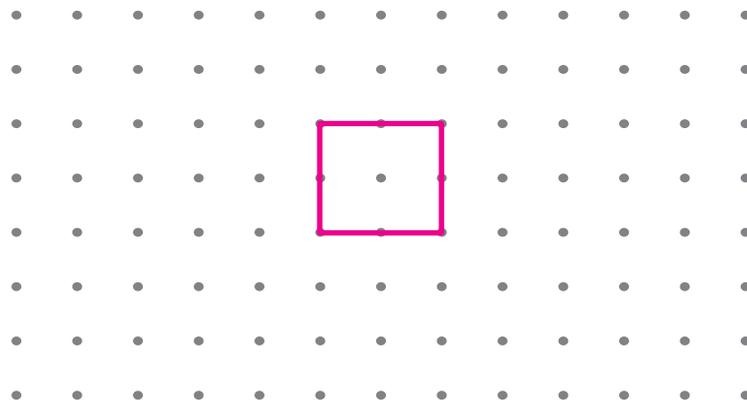
2. Use matchsticks to make a square so that it has squares on all its sides. How many squares did you get?

3. Complete the squares using the sides given below:
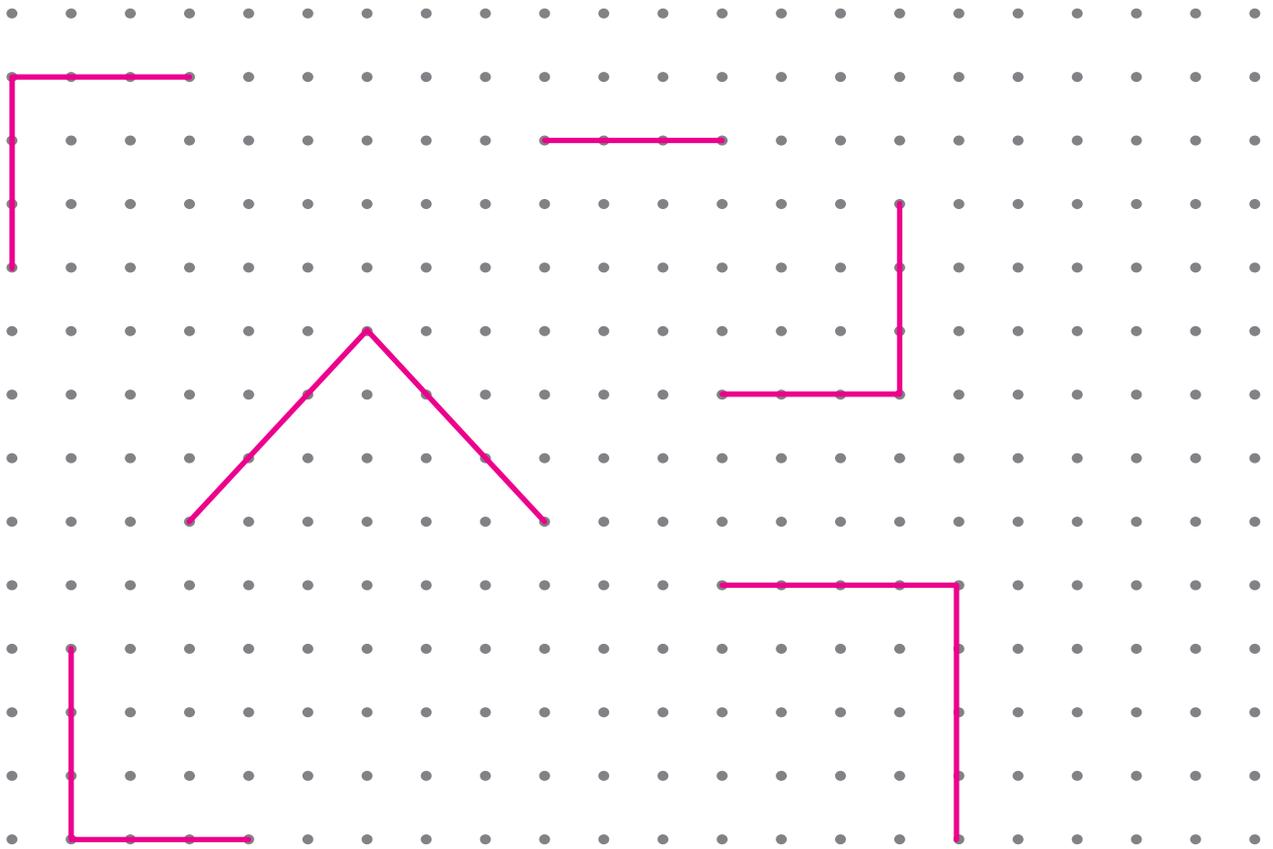
Worksheet 5.5

1. Draw and name some triangular objects, that you see around you, in your notebook.

2. Count the number of triangles in the given rangoli.

a.

b.
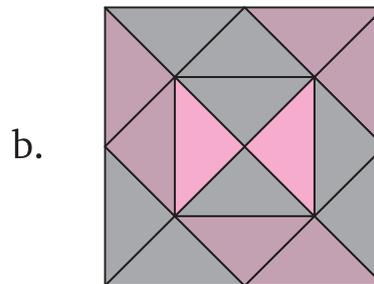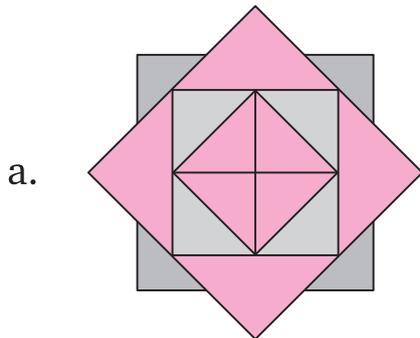
3. How many different triangles can be made using the dots on this circle?
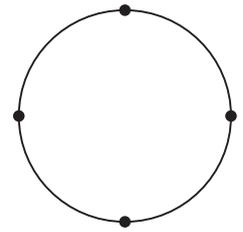
4. Move two matchsticks to turn the one triangle into two triangles.

FUN TIME
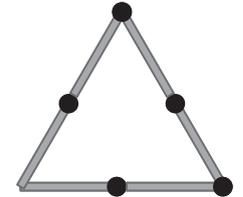
1. **Look at these two shapes and discuss their similarities and differences. Tick (✓) the appropriate word.**
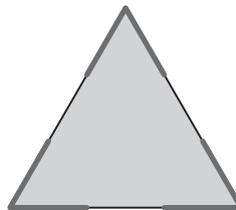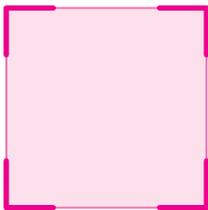
   a. Their corners are: $\boxed{\text{same} \bigcirc}$ $\boxed{\text{different} \bigcirc}$

   b. Number of sides is: $\boxed{\text{same} \bigcirc}$ $\boxed{\text{different} \bigcirc}$

2. **Find the largest rectangle in these shapes.**
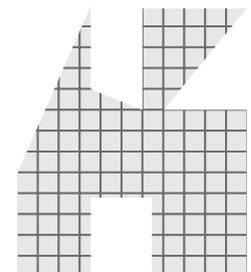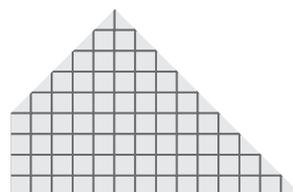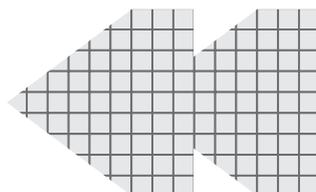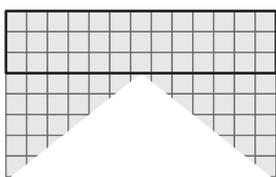
3. **I made one triangle. Then I made another row of triangles.**

   How many triangles are there in the second figure? _____

   If I make one more row, how many triangles will be there in the third figure? _____

Date : _____

Remarks : _____

Teacher's Sign : _____
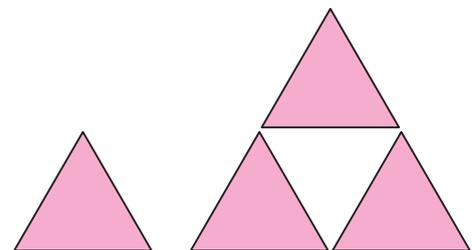
Worksheet 5.6

1. Each of these shapes can be the odd one out.
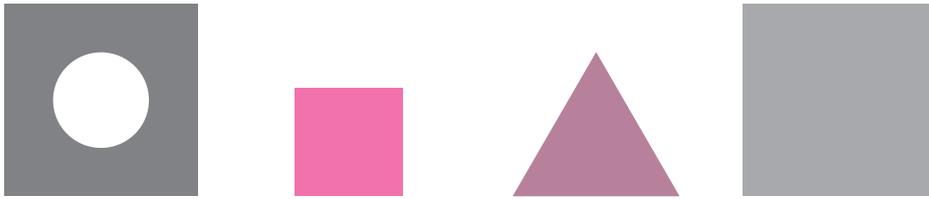
2. To complete the rectangle, tick (✓) the appropriate shapes from the left side to fill the gaps in the shape on the right side.
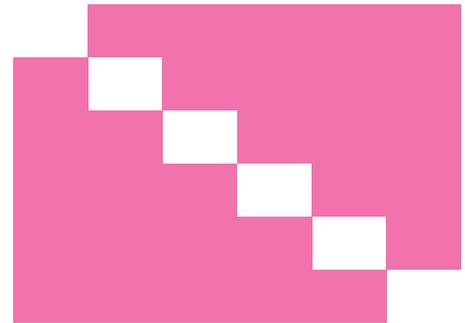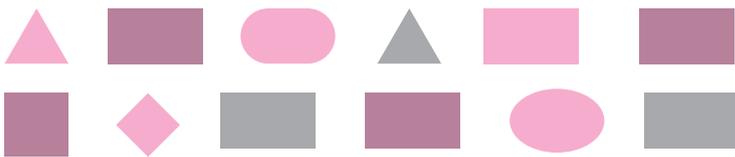
3. Draw two lines to split the shape into three triangles.
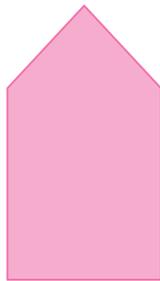
4. Draw one line to split the shape into 3 triangles.
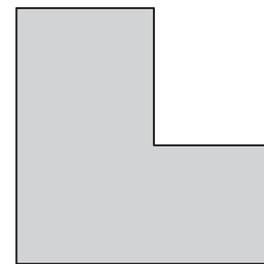
5. Make the following shapes with different sizes and orientations (angular positions) in your notebook.

    a. Triangle   b. Rectangle

    c. Circle   d. Other shape

Teaching Tips

Paper folding and cutting to be used to create different types of triangles. Students should be encouraged to build triangles with sticks and clay.

Date : _____

Remarks : _____

Teacher's Sign : _____

Tangram

Tangram is an old chinese puzzle, consisting of a square which is broken up into various geometrical shapes.

There are two types of tangrams, a 7-pieces tangram and a 5-pieces tangram.

Using the pieces of tangrams. interesting shapes of animals, people, objects can be formed.

Some interesting shapes are given below:
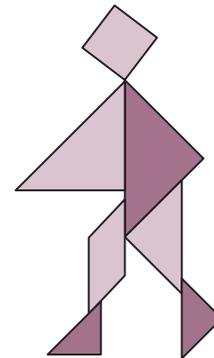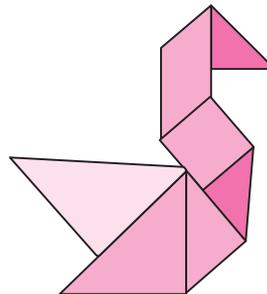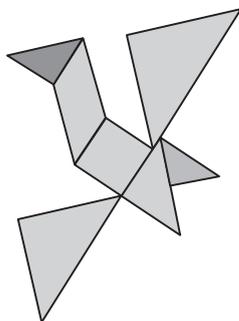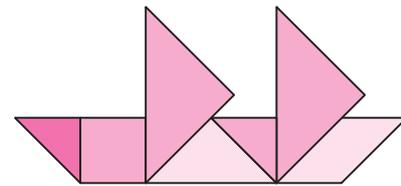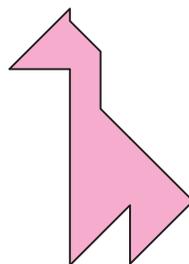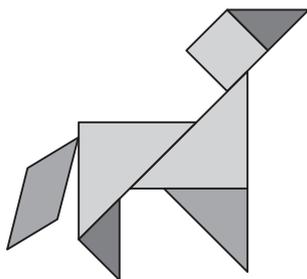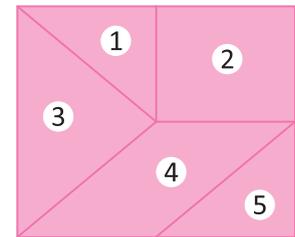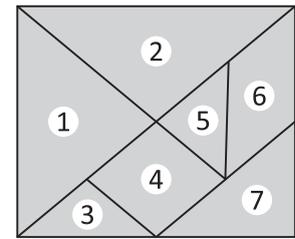
Worksheet 5.7

1. **Identify the following shapes:**

   a.

   b.

   c.
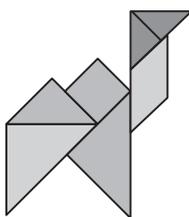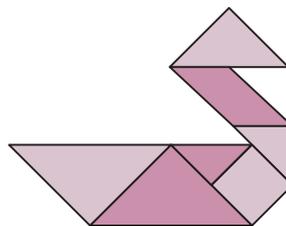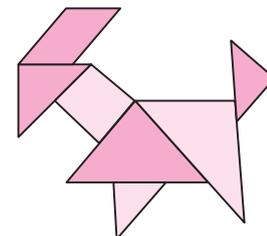
d.
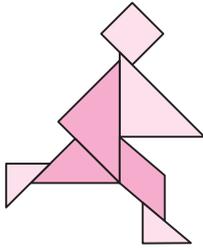
e.
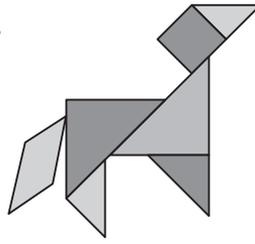
f.
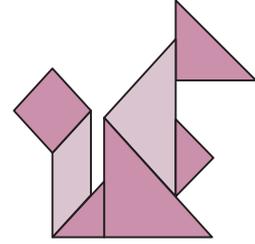
2. Using pieces of tangram. Draw the following shapes:

a. Rabbit

b. Cat

c. Hen

Mental MATHS

1. Scale is used to draw .... lines.

2. Coin is used to draw .... lines.

3. Cone can be used to draw .... and .... lines.

4. Cuboid is used to draw .... lines.

MULTIPLE Choice Questions

Tick (✓) the correct option:

1. A cuboid has
   a. 6 edges
   b. 8 edges
   c. 10 edges
   d. 12 edges

2. A cone has
   a. 1 edge
   b. 2 edges
   c. 4 edges
   d. no edges

3. A cylinder has
   a. 1 surface
   b. 2 surfaces
   c. 3 surfaces
   d. 4 surfaces

4. A sphere has
   a. 1 edge
   b. 2 edges
   c. 3 edges
   d. no edges

Worksheet 6.1

1. Saksham is jumping on a tiled path inside the mela. Fill in the empty tiles with numbers.

311					316				

2. Fill in the blanks with the correct numbers.

			294	295					

	302								310

3.

		127			130				134

4.

	482					487			490

5. Ants have found food on the ground. Guess how many ants there are. Count and check.
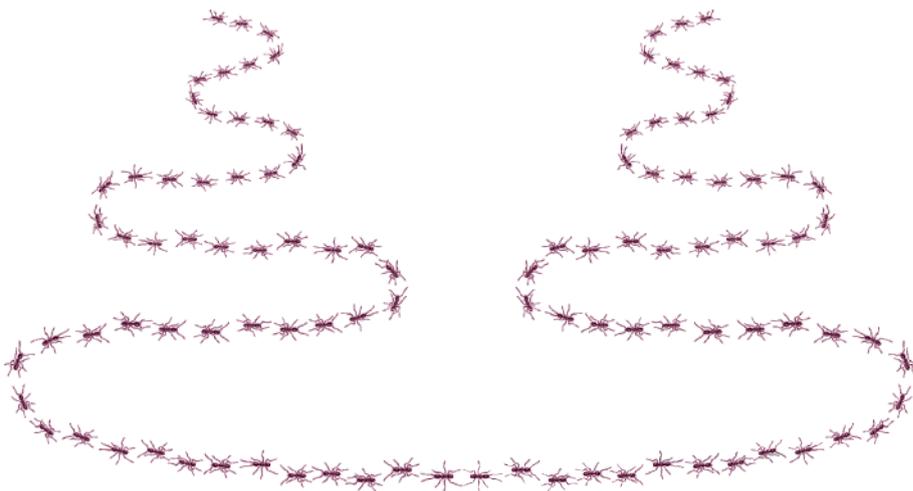
Teaching Tips

Ask why children got different answers and how one can get better at counting. The difference in the answers should be used as an opportunity to show why groups of 10 are more effective in counting correctly even large numbers. Help children arrive at a strategy to count correctly.

Date : _____

Remarks : _____

Teacher's Sign : _____

Meetali and Saksham have learnt to write numbers with the help of Matchstick bundles. They can also write number sentence in more than one way.

Worksheet 6.2

1. **Fill in the blanks appropriately.**

Matchsticks	Number	Number Sentence
	335	300 and 35 more (300 + 35) 15 less than 350 (350 − 15)
		400 and 16 more
	79	
	209	
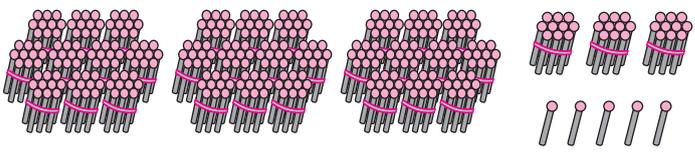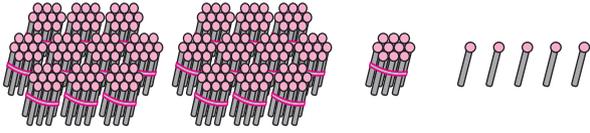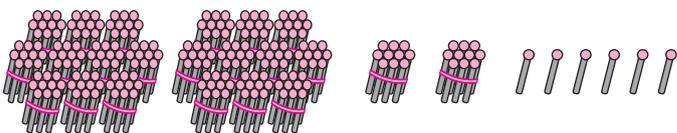
2. **Place the number given above on the number line.**
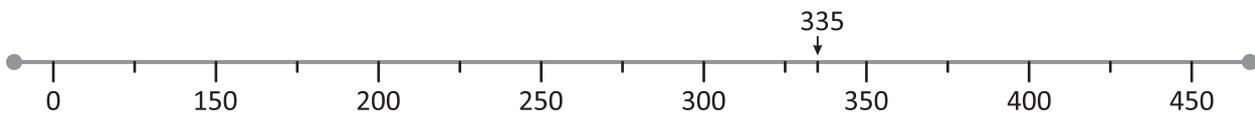
335 lies between 300 and 350.

3. Look at the pictures and write the corresponding numbers.

4. Make the number slider as shown in the picture. Increase or decreases the number as given below:

a.   385 — increase the number by 3

b.   247 — increase the number by 15

c.   467 — decrease the number by 5

d.   389 — decrease the number by 20

e.   590 — increase the number by 30.

Worksheet 6.3

Meetali and Saksham are trying to put their numbers on the following number lines.

1. Locate 217, 248, 259 on the number line below.

200   210   220   230   240   250   260
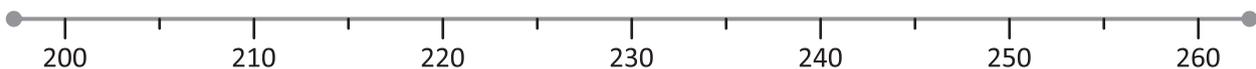
2. Locate 429, 432, 427, 475 and 487 on the number line below.

420   430   ▭   ▭   ▭   470   480   ▭
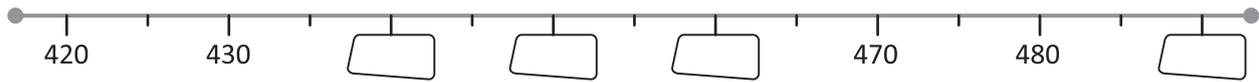
3. Tell how far 487 from 500: ....

470   480   487 490   500

FUN TIME

Magical Count: Write down any number name. Count the number of letters in that number name and write the name of that new number down. Keep repeating — what happens?

325 → Three hundred and twenty five — 25 letters
Twenty five
10 letters → Ten
3 letters → Three
5 letters → Five
4 letters → Four

196 → One hundred and ninety six

306 → Three hundred and six

Worksheet 6.4

1. Meetali and Saksham saw a big apartment.

Find the house numbers of the shaded houses without counting share your strategies.

One floor above 25 is 35

Fill in the shaded boxes with the correct house number.

HOP HUNDREDS HOME

Row / Column

				186					
			174						
				155					160
		143							
							138		
					127				
111	112	113							
101	102	103	104	105	106	107	108	109	110
									100
11	12	13	14	15	16	17	18	19	20
01	02	03	04	05	06	07	08	09	10

106 is 9 floor above 6

Date : _____

Remarks : _____

Teacher's Sign : _____

2. Write the floor and column number for each of the following houses.

House number	Floor	Column
23	2nd	3
27		
206		
259		
292		
231		
145		
328		
380		
499		

3. Find the following house numbers from the building and write the appropriate house numbers in the blank spaces. What do you notice? Discuss how the house numbers change when moving up and down and left to right.

12		
	144	

		238
		319

Puzzle Game

I am greater than 300 but less than 400. I have no tens. My ones and hundreds digit are the same Which number am I?

I am a 3-digit number. I have only digits 4 and 0. Which number am I?

I have digits 9, 1 and 5. A am less than 200. I have 9 ones. Which number am I?

4.

Spring Leap Homes

491									
	482								
				455					
								419	
401									410

a. Write the house numbers of the yellow and pink houses.

b. Write the pattern you see in these numbers.

....

....

5. Nitin wants to pack small boxes of 10 in a big box of 100.

a. How many boxes of 10 can he fit in a box of 100? ....

b. How many boxes of 10 can he fit in two boxes of 100? ....

c. How many boxes of 10 can he fit in four boxes of 100? ....

d. How many boxes of 10 will he find if he opens a box of 100? ....

Teaching Tips

Teacher can encourage children to identify patterns in the numbers, in the digits, how the digits change etc. Also, help children find the relationships among the 100's box, 10's and 1's box.

Date : _____

Remarks : _____

Teacher's Sign : _____

Comparison of Numbers

Worksheet 6.5

1. Put '<', '>' or '=' sign in the boxes:

a. 4286 ☐ 976

b. 8137 ☐ 5496

c. 6737 ☐ 6737

d. 6028 ☐ 7096

2. Encircle the smallest number:

a. 9143, 6708, 5976, 3894

b. 6897, 4706, 3784, 9763

c. 7238, 3764, 8644, 5281

d. 8143, 7064, 5796, 374

3. Encircle the greatest number:

a. 4127, 6738, 8048, 2376

b. 3197, 6725, 9172, 8374

c. 8137, 9162, 8145, 5832

d. 9063, 7058, 8237, 537

4. Arrange each of the following in ascending order:

a. 5728, 4728, 9167, 5037

b. 7228, 5773, 2036, 8148

c. 7032, 5089, 2056, 8143

d. 8146, 8189, 6725, 7656

5. Arrange each of the following in descending order:

a. 8796, 8257, 5178, 8967

b. 4567, 2809, 6758, 5794

c. 7137, 2096, 8597, 6385

d. 7149, 6372, 7143, 9149

Puzzle Game

I am a 4-digit number

○ My thousands place digit is the successor of 4.

○ Place value of hundreds place digits is 600.

○ Face value of tens place digit is 7.

○ Ones place digit is the predecessor of 9.

What am I? ....

Formation of Numbers with Given Digits

We can form many numbers with the help of given digits.

For example: Form numbers by using 7, 6, 3 and 5.

7653, 6537, 3576 3567

Here 7653 is the greatest number and 3567 is the smallest number formed by given digits.

Procedure for Forming the Greatest Number

Arrange all the given digits in descending order.

Example 1: Form the greatest number with digits 8,7, 4 and 2.

Solution: On arranging the given digits in descending order, we get 8742. Hence, the greatest number is 8742. with given digits.

Procedure for Forming the Smallest Number

Arrange all the given digits in ascending order. If 0 is the one of the given digits then we start from second smallest number, other than 0 and then arrange other digits in ascending order.

Example 2: Form the smallest number using given digits:

a. 5, 4, 2 and 7   b. 4, 5, 0 and 9

Solution: a. On arranging the given digits in ascending order, we get 2457 Hence, the smallest number is 2457 with given digits.

b. In given digits, 0 is also included, so we start from second smallest digit 5 and ascending order, we get 4059 Hence, the smallest number is 4059 with given digits.

Worksheet 6.6

1. Form the four different numbers with the given digits:

a. 7, 4, 5, 1 ...., ..., ..., ...   b. 8, 1, 4, 0 ...., ..., ..., ...

c. 7, 6, 2, 8 ...., ..., ..., ...   d. 3, 7, 2, 8 ...., ..., ..., ...

2. **Form the greatest and smallest 4-digit number with the given digits:**

	Greatest	Smallest
a. 6, 0, 9, 7	....	....
b. 3, 7, 8, 5	....	....
c. 6, 1, 3, 9	....	....
d. 6, 7, 1, 4	....	....

Mental MATHS

1. The smallest 5-digit number is ....
2. The successor of the greatest 6-digit number is ....
3. The predecessor of 9350 is ....
4. The place value of 3 in 3657 is ....

MULTIPLE Choice Questions

Tick (✓) the correct option:

1. The smallest number formed by using the digits 5, 0, 3 and 7 is
   a. 7035   b. 3057   c. 7530   d. 5037
2. The greatest number formed by using the digits 9, 7, 4, and 5 is
   a. 7945   b. 4579   c. 9754   d. 7549
3. I can be subtracted from
   a. V   b. X
   c. L   d. both (a) and (b)
4. The Roman Symbol X stands for
   a. 5   b. 10   c. 50   d. 100
5. The roman symbol L stand for
   a. 5   b. 10   c. 50   d. 100

Raksha Bandhan

Repeated Addition is Multiplication

Repeated addition of the same number is known as **multiplication**. (×) is the sign of multiplication.

7	×	5	=	35
↓		↓		↓
Multiplicand		Multiplier		Product

Worksheet 7.1

1. **Fill in the boxes:**

a. _____ = ☐ or ☐ × ☐ = ☐

b. _____ = ☐ or ☐ × ☐ = ☐

c. _____ = ☐ or ☐ × ☐ = ☐

d. _____ = ☐ or ☐ × ☐ = ☐
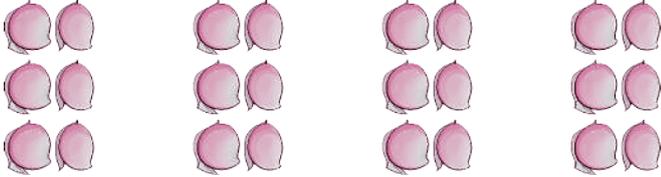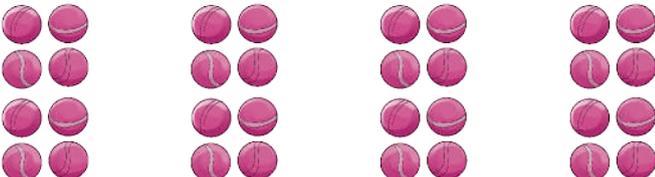
Multiplication on a Number Line

Multiply 6 by 4

Draw a number line
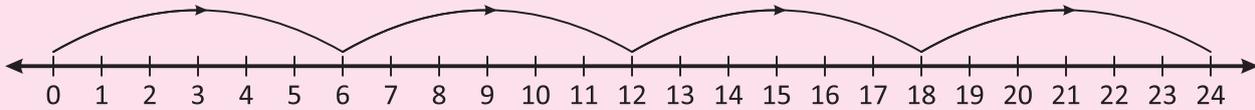
Start from 0 and move 6 groups of 4. We reach at 24.

$$So, \quad 6 \times 4 = 24$$

Worksheet 7.2

1. Using the number line, multiply the following:

a. Multiply 5 by 4

$$\bigcirc \times \bigcirc = \bigcirc$$
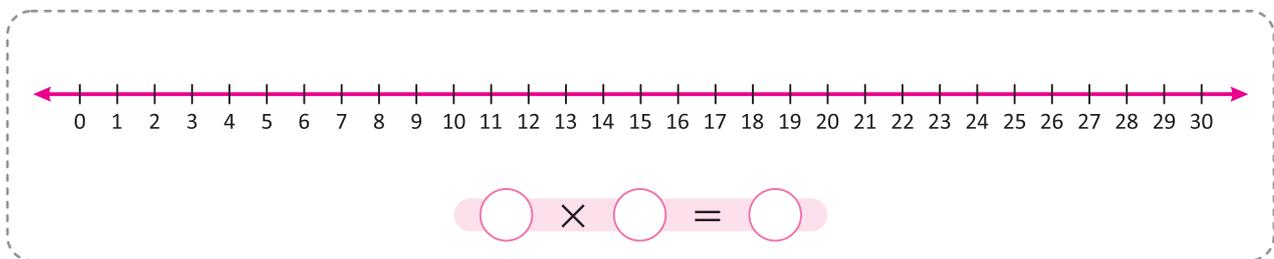
b. Multiply 4 by 7

$$\bigcirc \times \bigcirc = \bigcirc$$

c. Multiply 3 by 6

$$\bigcirc \times \bigcirc = \bigcirc$$
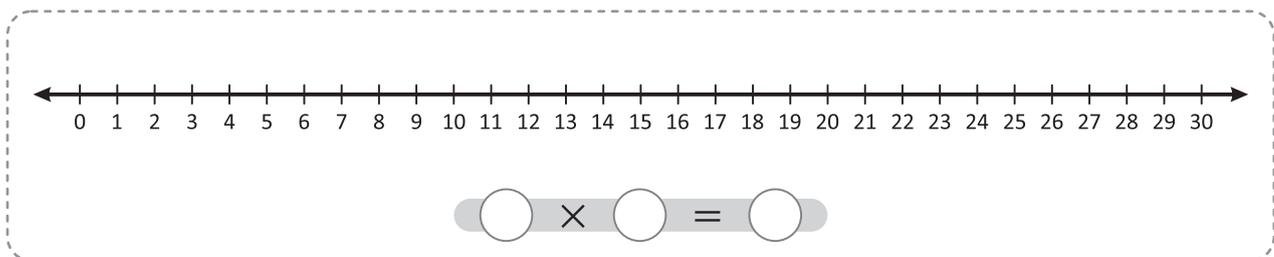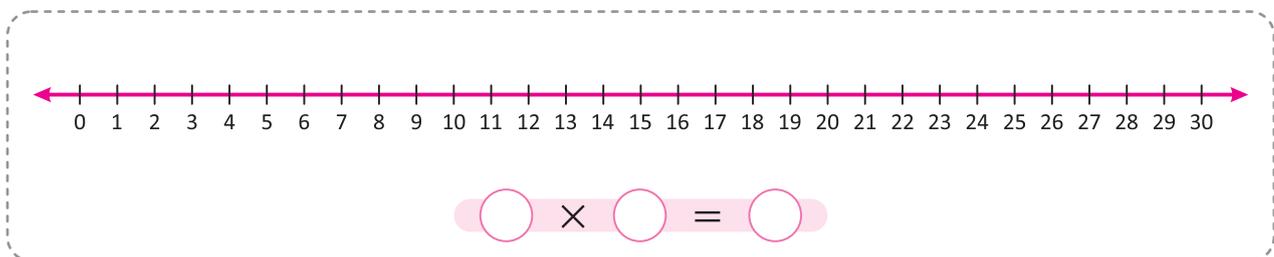
Look at the picture carefully. Count the number of apple.

There are .... apples.

How did you count? Discuss with your friends.

Counting in groups, we see there are four groups of five apples each.

or   5   +   5   +   5   +   5   = ...
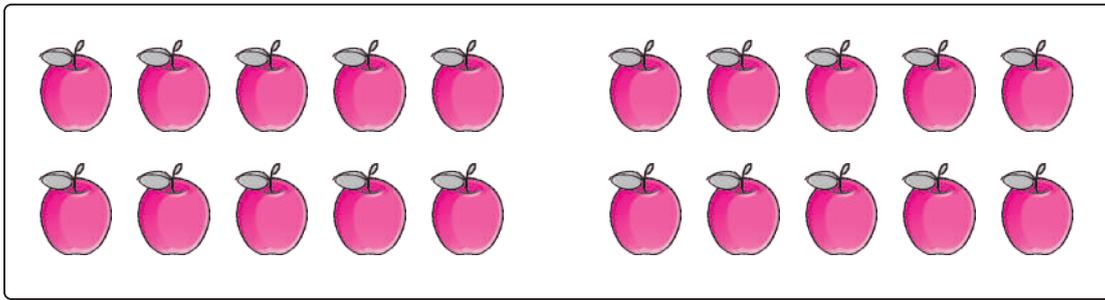
or   .... × 5 = ... apples.

Mona, we have bought 20 apples.

At home we are 6 members. Can we have 5 apples each?

Are there enough apples for everyone in Laveena's family to have five each? Share your thoughts in the class.

How many apples should Laveena buy so that everyone can get five each?

Skip Jumping Game

In the evening, the family goes to the playing field.

Atya draws a curvy number track on the ground with a stick. She asks Nitin to write numbers starting from 0.

Now, I need a jumper, Who wants to jump?

I will jump

Number 5

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
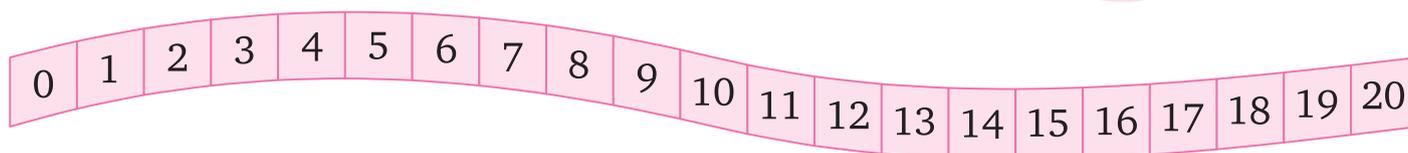
Starting from 0, Nitin jumps to 5. From 5 he goes to 10. From 10 he goes to 15. Now continue to see how Nitin jumps after 15.

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
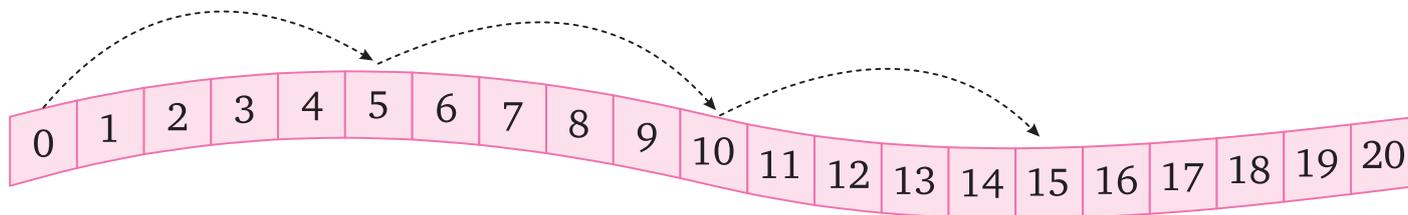
Nitin is Skip Jumping By 5.

Number of Jumps   **Number reached**

1 jump $\rightarrow$ 5

2 jumps $\rightarrow$ $5 + 5 = 10 = 2 \times 5$

3 jumps $\rightarrow$ $5 + 5 + 5 = 15 = 3 \times 5$

4 jumps $\rightarrow$ ....

5 jumps $\rightarrow$ ....

6 jumps $\rightarrow$ ....

7 jumps $\rightarrow$ ....

8 jumps $\rightarrow$ ....

9 jumps $\rightarrow$ ....

10 jumps $\rightarrow$ ....

Worksheet 7.3

1. Guess and writ the next number she will jump onto.

   ....

2. Is there a pattern in these numbers: 5, 10, 15, ... ?

3. How many steps forward is Nitin jumping each time?

4. Continue skip jumping by 4 by drawing the jumps on the number track.

| 25 |
| 24 |
| 23 |
| 22 |
| 21 |
| 20 |

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
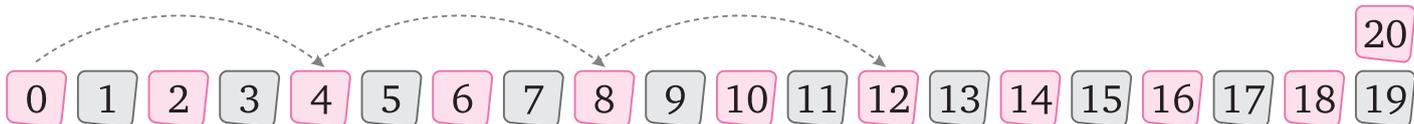
5. Can this skip jumping be used to form time-6 table? Write times-6 table in your notebook.

6. Is there repeated addition happening? Make times-4 table using repeated addition in the picture given below.

$$4 \qquad 4+4$$

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	1×4			2×4												17
34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18
35
36	37	38	39	40	41	42	43	44	45	46	47	48	49	50

7.

| 0 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 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 |
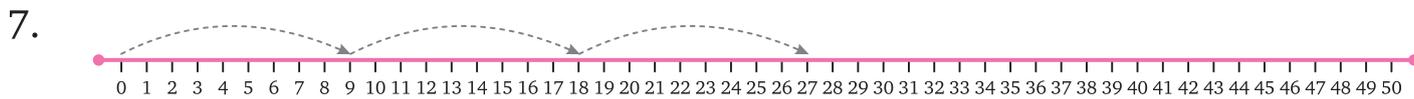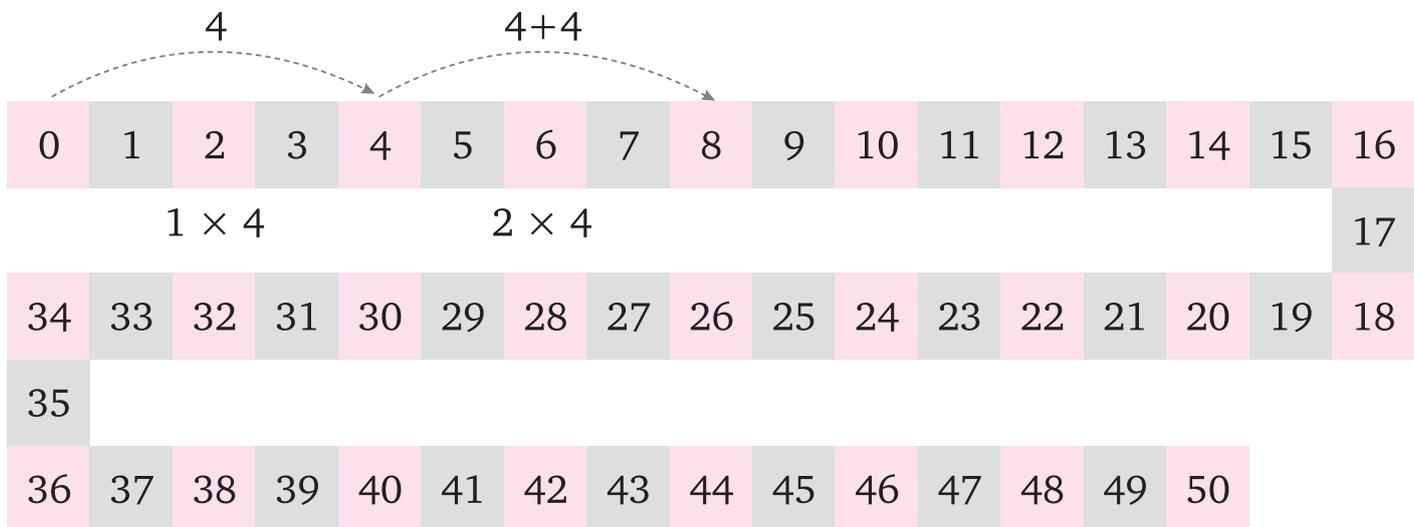
Naveen is doing skip jumping of .... steps.

After 27 he will jump on ...., ...

8. What times table can you construct from Naveen's jumps? Make it in your notebook.

9. Nitin also skip jumps. Naveen notes down the jumps but he misses the first few numbers.

   ...., ..., ..., 36, 45, 54, 63

   By what numbers was Nitin skip jumping? Construct the times table of this number in your notebook.

PLAY ZONE

Meenal places an apple on 12. Skip jump with equal steps to reach the apple.

No direct jumping to the apple is allowed. The one who reaches the apple in the smallest number of jumps wins.

What skip jumping number will you choose? ....

									12			

Play this game with your friends by putting the apple on different numbers on the track. See who is able to reach in the minimum number of jumps.

Are there numbers that can be reached only through skip jumping by 1? Find 3 such numbers.

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

Worksheet 7.4

1. Using multiplication tables, find the product of the following:

a. $8 \times 7 = \bigcirc$ b. $7 \times 5 = \bigcirc$ c. $8 \times 9 = \bigcirc$

d. $7 \times 9 = \bigcirc$ e. $5 \times 7 = \bigcirc$ f. $8 \times 6 = \bigcirc$

g. $9 \times 7 = \bigcirc$ h. $5 \times 9 = \bigcirc$ i. $9 \times 8 = \bigcirc$

j. $8 \times 5 = \bigcirc$ k. $9 \times 10 = \bigcirc$ l. $4 \times 4 = \bigcirc$

m. $4 \times 8 = \bigcirc$ n. $6 \times 3 = \bigcirc$ o. $10 \times 2 = \bigcirc$

p. $3 \times 6 = \bigcirc$ q. $8 \times 3 = \bigcirc$ r. $10 \times 3 = \bigcirc$

Puzzle Game

DICE Game

Take two dice and make two grids of numbers as shown below:

12	15	20	24
8	9	10	25
6	36	2	18
5	4	3	16

This game will be played between two children.

Throw both dice together and find the product of numbers obtained on dice.

Now cross out that number from grid. Suppose 3 and 5 have come on dice, so we will cross 15. You have to cross 5 numbers, who crosses first will win the game.

Worksheet 7.5

1. A housefly has 6 legs.

   5 housefly will have .... legs.

   10 housefly will have .... legs.

   15 housefly will have .... legs.

2. How many legs will 23 housefly have?

3. A group of houseflies have 32 legs. How many houseflies are there in the group?

4. There 4 wheels in a car. How many wheels are there in

   a. 18 cars   b. 34 cars

5. Cars in a garage have a total of 36 wheels. How many cars are there in the garage?

6. There is a line of 55 ants (one ant has 6 legs). What is the total number of legs in the line?

7. Micky, the mouse, can see 48 legs of cows in the shed. How many cows are there in the shed?

8. Karry, the cow, can see 24 horns of cows in the shed. What is the total number of legs in the shed?

Worksheet 7.6

1. A rabbit is at 0. It takes jumps of only 6. What would be the largest number that the rabbit will reach before crossing 50?

   0 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 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

2. A rabbit wants to jump backwards from 50. It continues to take jumps of 6. What is the number after which it is not possible for the rabbit to make a jump of 6?

   0 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 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

3. What number should the rabbit start from to reach 0, taking jumps of 6 each time? What do you observe?

0 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 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

Mental MATHS

Fill the followers:

1.

Center: **5**

- × 2 =
- × 6 =
- × 8 =
- + 3 =
- × 5 =
- + 7 =
- = 10 ×
- = 4 +

2.

Center: **8**

- × 7 =
- × 6 =
- × 2 =
- + 4 =
- × 5 =
- + 8 =
- = 9 ×
- = 10 ×
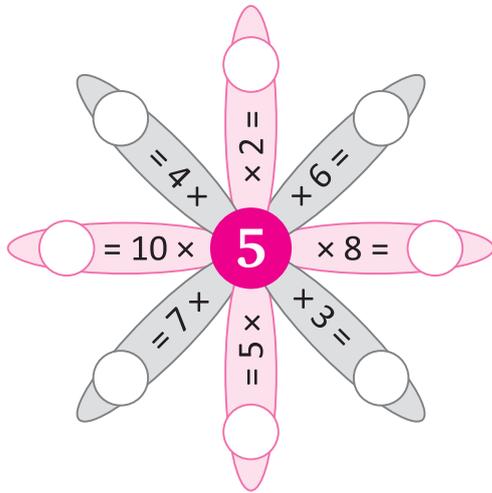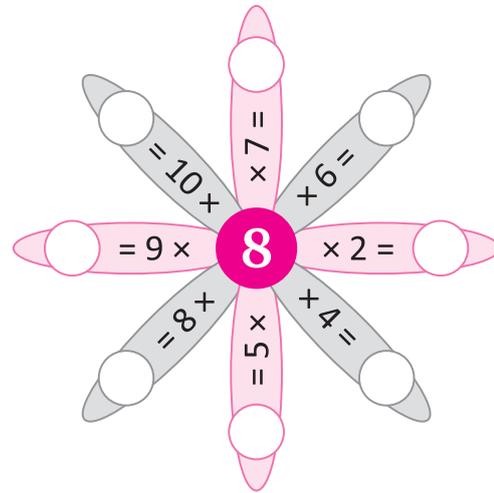
MULTIPLE Choice Questions

Tick (✓) the correct option:

1. The product of 9 and 9 is ....

   a. 81 b. 64 c. 56 d. 72

2. The product of 7 and 8 is ....

   a. 56 b. 49 c. 63 d. 70

3. The product of 9 and 8 is ....

   a. 63 b. 72 c. 62 d. 81

4. The product of 7 and 7 is ....

   a. 56 b. 64 c. 49 d. 81

5. The product of 10 and 8 is ....

   a. 70 b. 60 c. 80 d. 90

Worksheet 8.1

1. Write the fraction for each shaded part:

a.   □
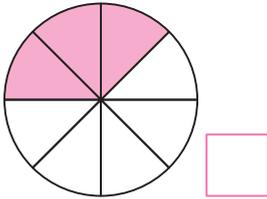
b.   □
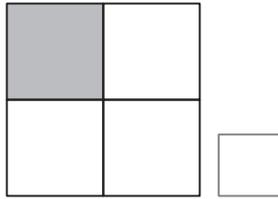
c.   □
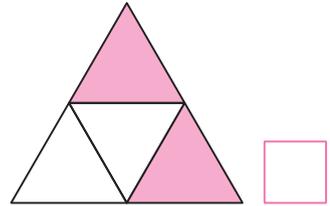
2. Colour one-half $\left(\dfrac{1}{2}\right)$ of each of the following shape:
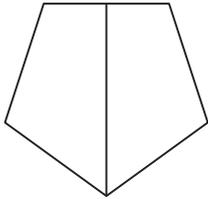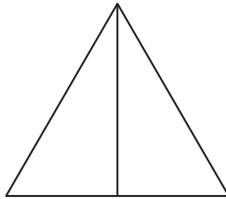
a.   b.   c.
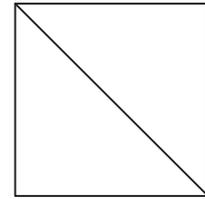
3. Colour one third $\left(\dfrac{1}{3}\right)$ of each of the following shape:
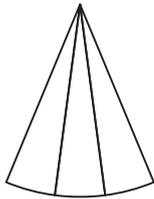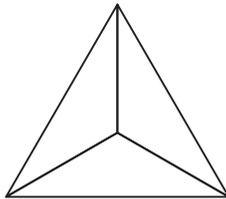
a.   b.   c.
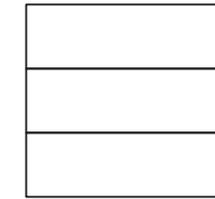
Activity Corner

First colour the Indian flag and then answer the following questions. What fraction of the India flag is:

a. White ◯   b. Orange ◯   c. Green ◯

d. White and Orange ◯   e. Green and Orange ◯
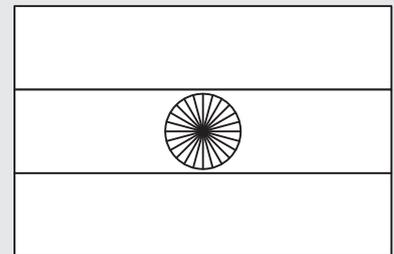
Worksheet 8.2

1. Colour the pictures and find the number:

a. $\dfrac{1}{2}$ of 16 mobile phones
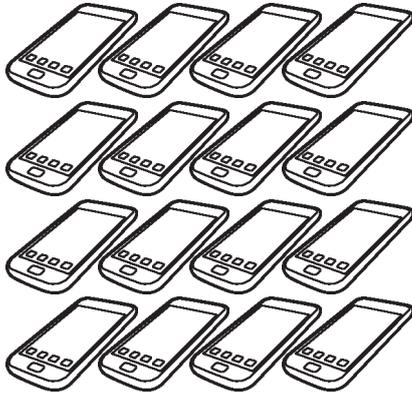
b. $\dfrac{1}{3}$ of 18 balls
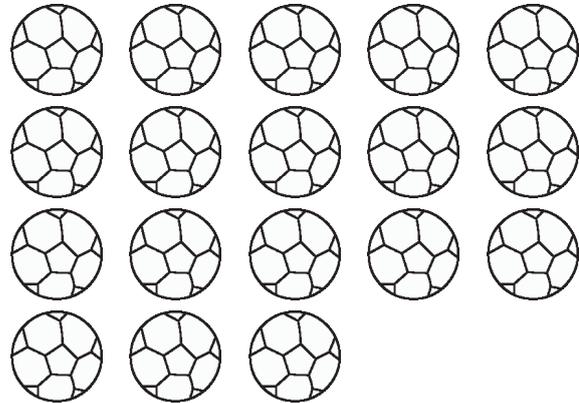
c. $\dfrac{1}{4}$ of 20 chairs
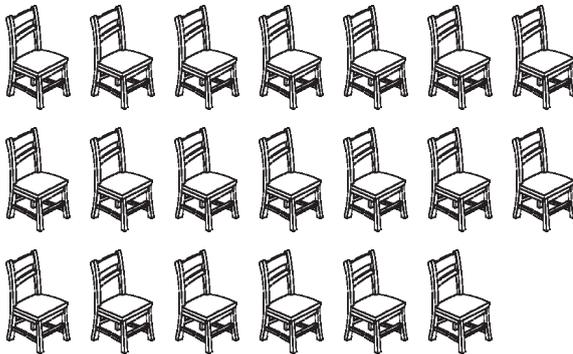
d. $\dfrac{1}{5}$ of 25 kites
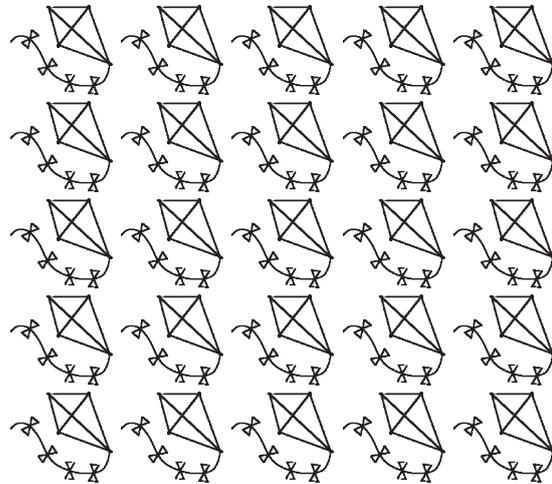
2. Find the following:

a. $\dfrac{1}{3}$ of 24 = ...

b. $\dfrac{1}{4}$ of 16 = ...

c. $\dfrac{1}{2}$ of 12 = ...

d. $\dfrac{1}{4}$ of 28 = ...

e. $\dfrac{1}{5}$ of 35 = ...

f. $\dfrac{1}{6}$ of 30 = ...

g. $\dfrac{1}{3}$ of 24 = ...

h. $\dfrac{1}{5}$ of 55 = ...

Comparison of Fractions

In this class, we will compare like fractions.

The fraction having greater numerator is greater than the other fraction.
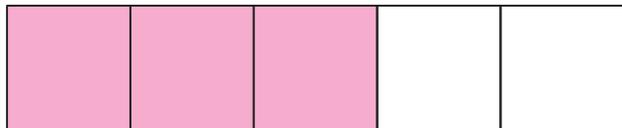
$$\frac{3}{5}$$
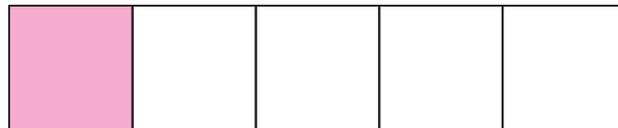
$$\frac{1}{5}$$

More part of first figure is shaded than second figure even both the figures are equally divided.

So, $\dfrac{3}{5} > \dfrac{1}{5}$

Example 1: Compare the following pairs of fractions:

a. $\dfrac{4}{11}$ and $\dfrac{6}{11}$ 　　　　b. $\dfrac{7}{10}$ and $\dfrac{2}{10}$

Solution: a. $\dfrac{4}{11}$ and $\dfrac{6}{11}$ are like fractions.

So, we will compare their numerators.

Hence, $\dfrac{4}{11} < \dfrac{6}{11}$ (Science, $4 < 6$)

b. $\dfrac{7}{10}$ and $\dfrac{2}{10}$ are like fractions.

So, we will compare their numerators.

Hence, $\dfrac{7}{10} > \dfrac{2}{10}$ (Since, $7 > 2$)

Example 2: Arrange the following fractions in descending order:

$\dfrac{3}{13}, \dfrac{7}{13}, \dfrac{2}{13}, \dfrac{11}{13}$ and $\dfrac{6}{13}$

Solution: All given fractions are like fractions.

So, we will compare their numerators.

Descending order means largest to smallest.

Now, $\dfrac{11}{13} > \dfrac{7}{13} > \dfrac{6}{13} > \dfrac{3}{13} > \dfrac{2}{13}$ (Since, 11 > 7 > 6 > 3 > 2)

Hence, descending order of given fractions is $\dfrac{11}{13}, \dfrac{7}{13}, \dfrac{6}{13}, \dfrac{3}{13}$ and $\dfrac{2}{13}$.

Example 3:   Arrange the following fractions in ascending order.

$\dfrac{5}{17}, \dfrac{9}{17}, \dfrac{4}{17}, \dfrac{13}{17}$ and $\dfrac{8}{17}$

Solution: All given fractions are like fractions.

So, we will compare their numerators.

Ascending order means the smallest to the largest.

Now, $\dfrac{4}{17} < \dfrac{5}{17} < \dfrac{8}{17} < \dfrac{9}{17} < \dfrac{13}{17}$

Hence, ascending order of given fractions is $\dfrac{4}{17}, \dfrac{5}{17}, \dfrac{8}{17}, \dfrac{9}{17}$ and $\dfrac{13}{17}$.

Worksheet 8.3

1.   Write four equivalent fractions to each of the following fractions:

a. $\dfrac{2}{3}$ = ..., ..., ..., ...   b. $\dfrac{4}{7}$ = ..., ..., ..., ...

c. $\dfrac{5}{8}$ = ..., ..., ..., ...   d. $\dfrac{5}{13}$ = ..., ..., ..., ...

2.   Fill in the boxes:

a. $\dfrac{5}{8} = \dfrac{25}{\square}$ b. $\dfrac{7}{8} = \dfrac{28}{\square}$

c. $\dfrac{5}{17} = \dfrac{35}{\square}$ d. $\dfrac{9}{11} = \dfrac{\square}{55}$

3.   Fill in the boxes with '>', '<' or '=':

a. $\dfrac{7}{13} \ \square \ \dfrac{7}{13}$ b. $\dfrac{9}{23} \ \square \ \dfrac{16}{23}$

c. $\dfrac{8}{11} \ \square \ \dfrac{6}{11}$ d. $\dfrac{5}{7} \ \square \ \dfrac{2}{7}$

Use the clues to find the right fraction. Tick (✓) the correct box from the given 3 options.

1. I have less than double of 3 toffees.

I have more than half of 8 toffees.

a.

4 toffees

b.

5 toffees

c.

6 toffees

2. I have less than double of 4 toffees.

I have more than half of 10 toffees.

a.
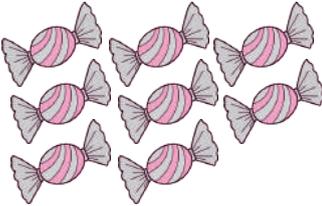
8 toffees

b.

6 toffees

c.

3 toffees

> When a whole is shared equally among 4 people, each share is called a quarter.
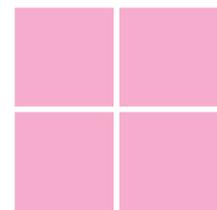
What part of the Minni did each get?

How many quarters in a whole?

Quarter   Quarter
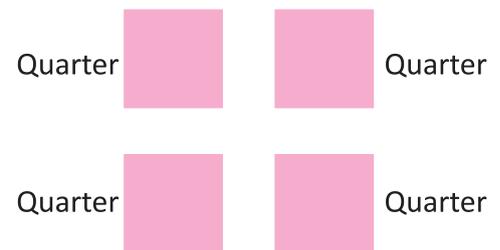
Quarter   Quarter

Teaching Tips

Students may also say one fourth or half of half. Teacher could encourage various ways of expressing and help them to come up with precise expressions.

Date : _____

Remarks : _____

Teacher's Sign : _____

Worksheet 8.4

1. Tick (✓) the object that show quarters.
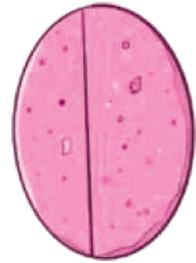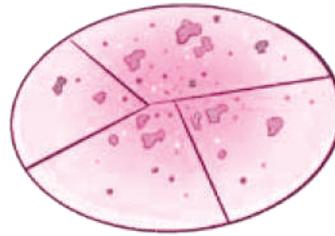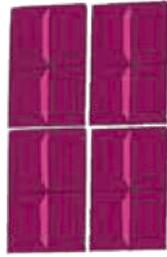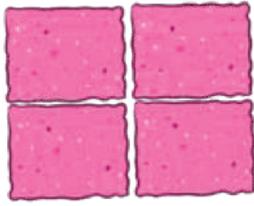
2. Draw lines to make a quarter of the whole.
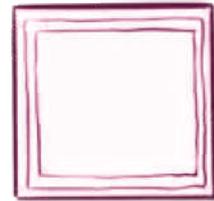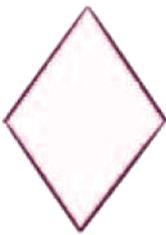
3. Draw the remaining three quarters and complete the whole.
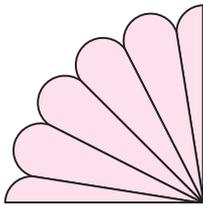
   a.   b.

4. Draw the remaining quarters to complete the whole.
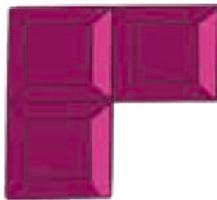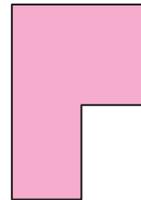
   a.   b.

Worksheet 8.5

1. **Tick (✓) the shapes below that show three-quarters.**
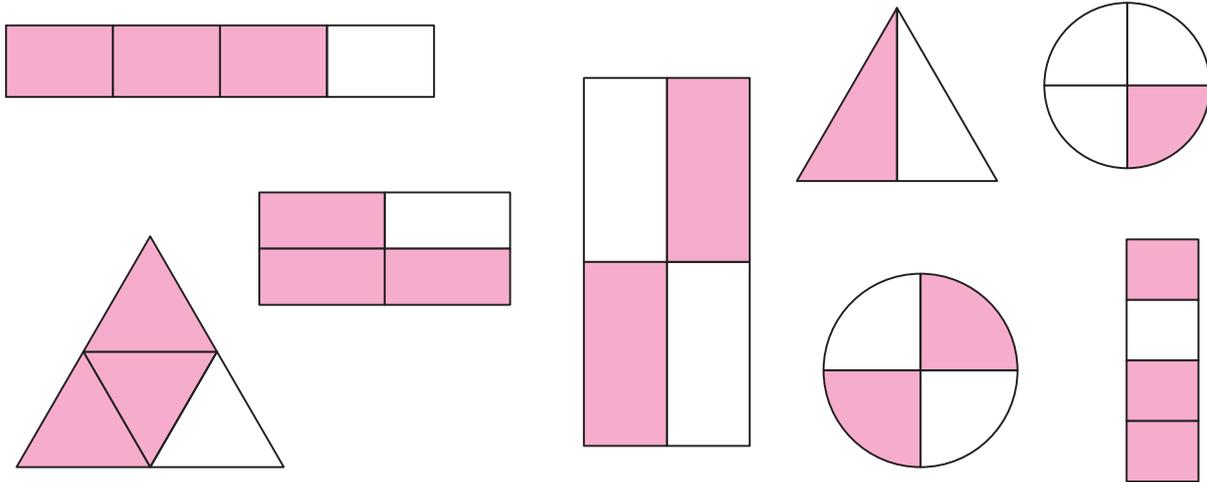
2. **Colour the shapes below to show the fractions as instructed.**
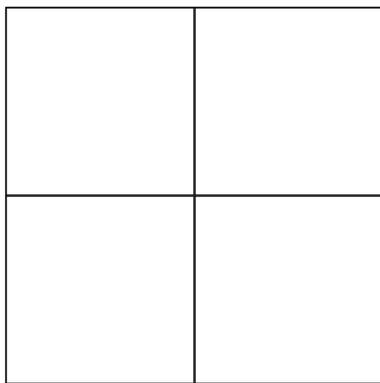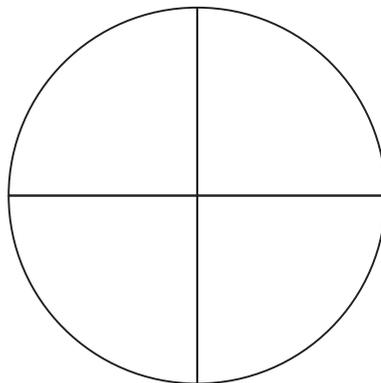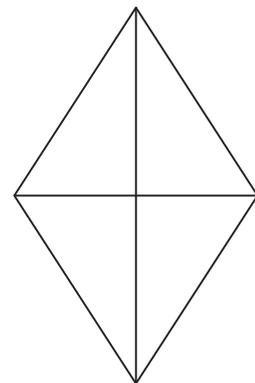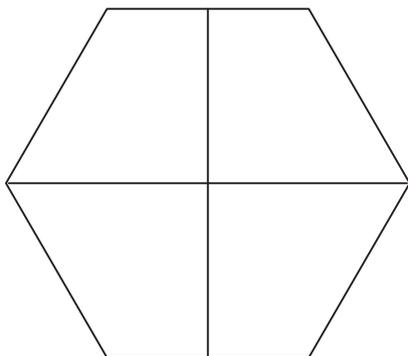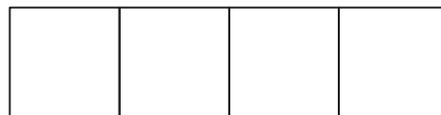
2 quarters   1 quarters   3 quarters
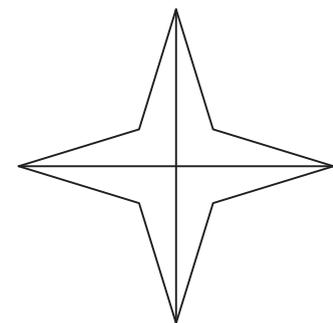
4 quarters   3 quarters   1 quarters

3. Draw lines and colour the shapes below to show the fractions as instructed.
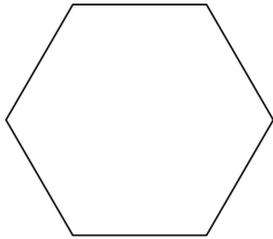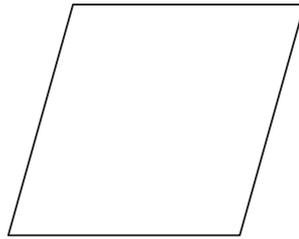
2 quarters
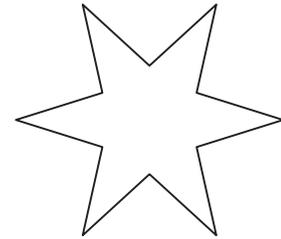
1 quarters
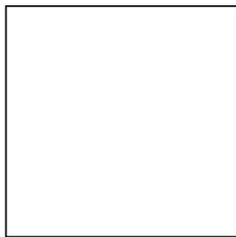
3 quarters
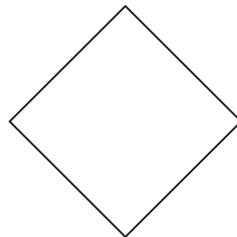
4 quarters
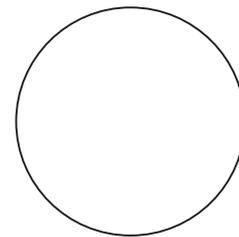
3 quarters

1 quarters

4. Here is a rectangle which shows quarters. Discuss how.
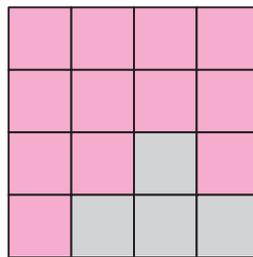
5. Show quarters and halves in different ways in the grids given below.
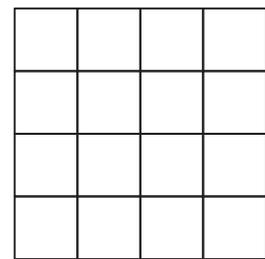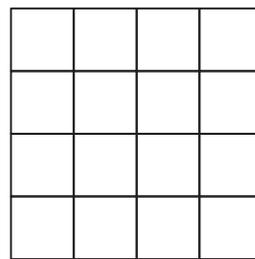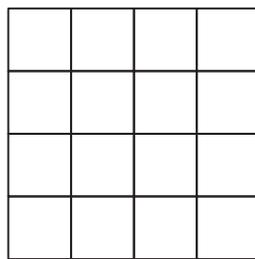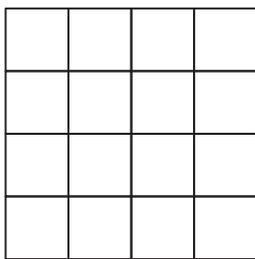
6. Use the fractions puzzle pieces from your book to form a whole.

Date : _____

Remarks : _____

Workbook (Math-3)   63

Teacher's Sign : _____

Worksheet 9.1

1. Write the number names of the following

a. 832 _____

b. 947 _____

c. 726 _____

d. 504 _____

e. 620 _____

f. 700 _____

2. Let us locate the following numbers on the number line: 630, 640, 728, 796, 690

600   620   ☐   660   ☐   700   720   ☐   760   780   800

3. Also locate the following numbers on the number line: 803, 821, 859, 910, 955, 987

795   815   835   ☐   875   895   ☐   935   955   975   ☐

4. Also locate the following numbers on the number line: 800, 815, 900, 927, 960, 978

795   815   ☐   855   ☐   895   915   ☐   955   975   ☐

Teaching Tips

Help children to make guesses like the number of students in your class, school, or neighbourhood, or peanuts in a cart. Show a 1000 ginladi to understand how large 1000 is. Also show the hundreds after 500 on this ginladi: 600, 700, 800, 900, 1000.

Date : _____

Remarks : _____

Teacher's Sign : _____

Worksheet 9.2

1. Write the appropriate numbers between which each of the given numbers lie.

Number	Neighbouring hundreds	Neighbouring fifties	Neighbouring tens
368	300 and 400	350 and 400	360 and 370
283			
445			
593			
634			
799			

2. Help cranes reach their food using the number line.
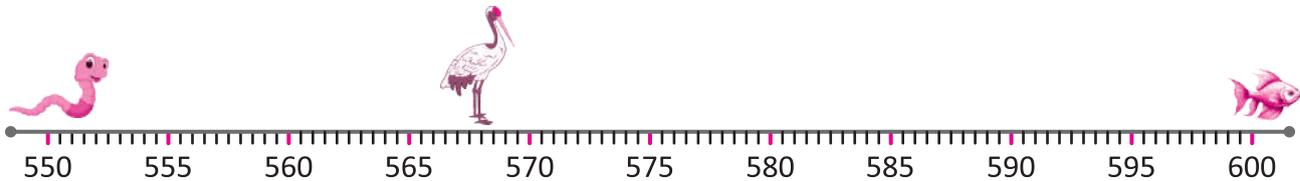
To reach the worm

567 – .... steps = 550

Length of steps: ....

To reach the fish

567 + ... steps = 600

Length of steps: ....
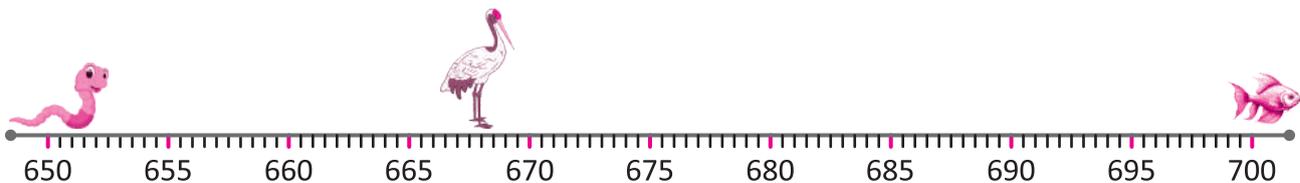
To reach the worm

.... – .... steps = 650

Length of steps: ....

To reach the fish

.... + ... steps = 700

Length of steps: ....

Teaching Tips

Help children find different jumps or steps to the crane's food. Let them find how the crane can reach its food in 2 or 3 jumps.

Date : _____

Remarks : _____

Teacher's Sign : _____

1. **Fill the grid with numbers between 670 and 730. Strike out all the numbers which match the clues below. You can strike out more than one number. The child who has most numbers cancelled is the winner. One example is given below.**

Clues

1. 697
2. A number with 4
3. Numbers between 695 and 705
4. Two more than 700
5. 5 less than 721

672	728	679	699
697	674	681	700
723	673	670	702
709	716	714	726

2. **Write different ways of making the following numbers.**

4 hundreds
6 tens
8 ones

| 68 more than 400 | **468** | 32 less than 500 500 – 32 |

400+60+8

355

705

836
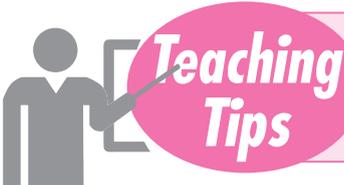
Date : _____

Remarks : _____

Teacher's Sign : _____

Skip and Solve

Worksheet 9.3

1. Nitin and Jatin are resting. Bhumi asks them to complete the number patterns. Let us help them fill in the empty boxes.
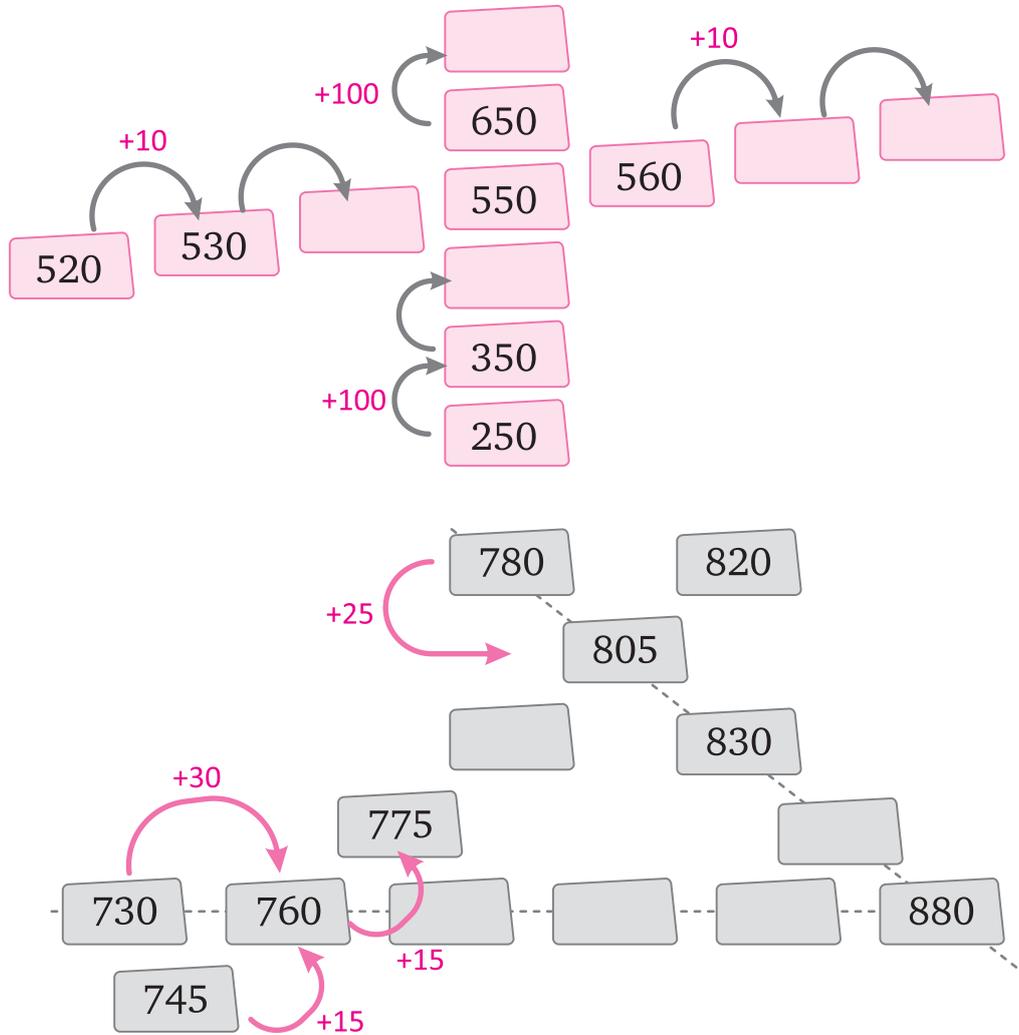
2. Write number sentences for the numbers in the centre.

390 + 110

500 →

850 + 25

875 →
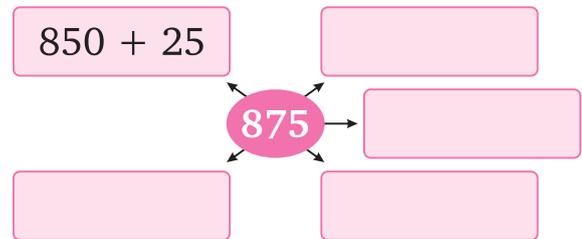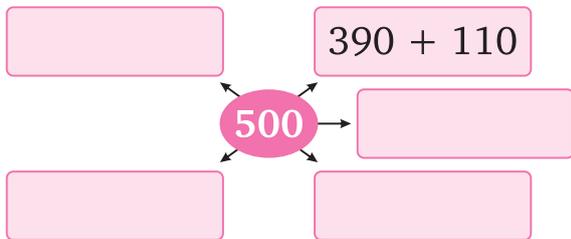
3. **Write numbers in the blank spaces such that they meet the conditions.**

	500		
[ ]		[ ]	
[ ]		[ ]	

519	( )	525
485		536
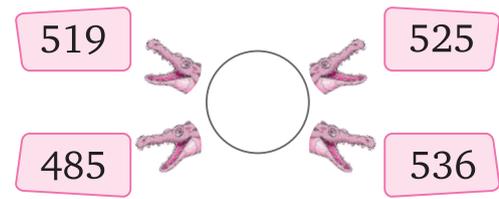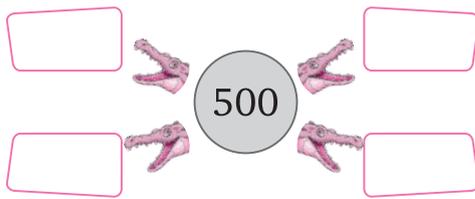
4. **Match the quantities on the left with the appropriate numbers on the right.**

Number of steps you walk in a day	0-10
Number of flowers in a garland	11-50
Number of stars in the sky	51-100
Number of children in your school	101-200
Number of pages in your mathematics book	201-500
	501-1000
Number of books in your classroom	More than 1000
Number of people in a bus	

Puzzle *Game*

Fill the numbers 384, 23, 176, 905 in the empty circles such that they meet the conditions.
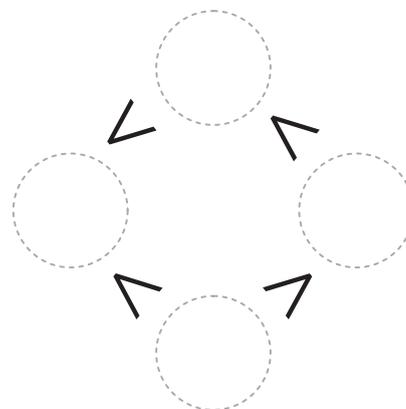
5. **Match the follwing such that all the conditions are met.**

I have 2 zeroes as digits and am very close to 99	150
I have 3 hundreds, 6 tens and 7 ones	425
I have zero tens and zero ones	367
I am century + half century	400
I come between 400 and 450 and I have 5 as a digit	100

Worksheet 9.4

1. **I have 6 blank paper slips. I can write 100, 10 or 1 on each of them. What numbers can I make with these 6 slips? Discuss.**

Three slip with 100 written on them and three slip with 10 on them 330

Four slip with 100 written on them and two slips with 10 on them. 420

100	100	10
100	10	10

100	100	10
100	100	10

a. What will you write on these slips for making 231?

b. What will you write on these slips for making 141?

2.   Make other numbers.

a.

Number is ....

b.

Number is ....

What is the largest number that can be made? ....

Are there numbers which can not be made using these slips?

Find out.

What is the smallest number that can be made? ....

FUN TIME

Take the digits 3 and 8 and make as many 2 or 3 digit numbers as you can. You can repeat the digits.

Meenal takes 5, 9

I can make 559, 955

| 5 | 9 |

| 5 | 9 |

| 9 | 5 |

| 5 | 5 | 9 |

| 9 | 5 | 5 |

Arrange the numbers
Smaller to greater

....

....

Smallest number:
Largest Number:

2 digit numbers	3 digit numbers

Teaching Tips

Play such games frequently with different numbers and clues.

10 Fun at Class Party-!

Measurement of Length

There are two ways of measuring the length of anything.

1. Non-standard methods
2. Standard methods

Non-standard Methods

Handspan, cubit, footspan, pace etc. are called non-standard methods of measurement. These are measured by body parts so they differ person to person.
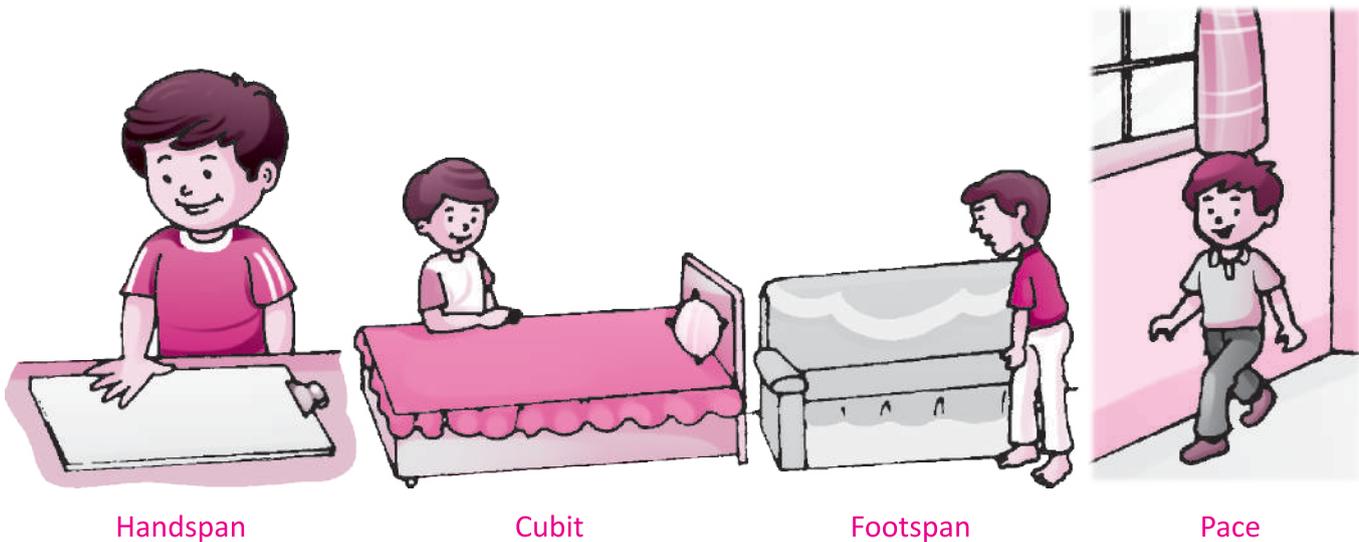
Handspan   Cubit   Footspan   Pace

Worksheet 10.1

1. **Using body parts, measure the length of the following:**

   a. The length of your writing pad is .... handspans.

   b. The length of your bed is .... footspans.

   c. The length of your sofa is .... footspans.

   d. The length of room is .... paces.

   e. The length of your bicycle is .... footspans.

   f. The length of blackboard is .... cubits.

2. **Write whether the lengths of the following are measured in m or cm.**

a. The length of a 🚲 is in ....

b. The length of a 🚌 is in ....

c. The length of a 🚙 is in ....

d. The length of a 🧊 is in ....

3. **Measure the length of the following using a scale.**

a. The length of a 🥛 is .... cm long.

b. The length of a ✏️ is .... cm long.

c. The length of a 🧴 is .... cm long.

Activity Corner

Group Activity

Take a ribbon. Wind it once round your wrist. Then measure the length of ribbon with the help of scale.

Similarly do with other students and note in the table.

Are all the lengths same?

Name	Length of ribbon/wrist
A	
B	
C	
D	

Filling and Lifting

Worksheet 11.1

1. Fill in the blanks:

The .... is heavier than ....
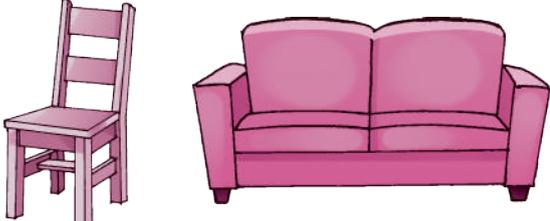
The .... is heavier than ....

The .... is heavier than ....

The .... is heavier than ....

2. Write whether the mass of the following objects measure in g or kg:

a. The mass of a 🚲 is in ....

b. The mass of a 📱 is in ....

c. The mass of a 🧼 is in ....

d. The mass of a 📦 is in ....

e. The mass of a 🍼 is in ....

Worksheet 11.2

1. Big container can be filled by along side small containers.

a.   [bucket]   =   [500 mL] [500 mL] [500 mL]
                       [500 mL] [500 mL]

b.   [pitcher]   =   [50 mL] [50 mL] [50 mL] [50 mL]
                        [50 mL] [50 mL] [50 mL]

2. Write whether the capacity of the following are measured in mL or L.

a.   Tea in a [cup] is in ....   b.   Water in a [drum] is in ....

c.   Juice in a [glass] is in ....   d.   Syrup in a [bottle] is in ....

e.   Milk in a [bottle] is in ....

3. Convert the following in mL:

a.   3 L = ...   b.   5 L = ...

c.   16 L = ...   d.   27 L = ...

MULTIPLE Choice Questions

1. The weight of vegetables is measured in

a. kL   b. m   c. kg   d. L

2. The length of room is measured in

   a. cm　　　　　b. m　　　　　c. km　　　　　d. none of these

3. The unit of length is

   a. g　　　　　　b. kg　　　　　c. m　　　　　d. L

4. The unit of capacity is

   a. g　　　　　　b. m　　　　　c. cm　　　　　d. mL

5. The milk is measured in

   a. m　　　　　　b. L　　　　　c. cm　　　　　d. g

6. Unit of mass is

   a. kg　　　　　b. m　　　　　c. cm　　　　　d. mL

FUN TIME

How much is 1 Kilogram?

With the help of your parents, find objects in your home on which 1 kilogram is written. Feel it with your hand and guess what other objects may be 1 kilogram. Verify by checking on the label of the object or by asking your parents.

1. Write the names of the objects that are 1 kilogram.

   ....,　　　..

   Let us keep a 1 kilogram salt packet or any other readily available packet as our measuring tool.

2. Can you guess which of these things are likely to be lighter or heavier than 1 Kilogram? Put a tick (✓) mark in the appropriate box.

Objects							
More than 1 kg	☐	☐	☐	☐	☐	☐	☐
Less than 1 kg	☐	☐	☐	☐	☐	☐	☐

Worksheet 12.1

Add 3	230	233						
Add 6	470							
Subtract 5	387							

Add 5	134						
Subtract 7	257						
Add 8	388						
Subtract 8	431						

Addition without Carrying Over

Example 1: Add 534 and 213.

Solution:

H	T	O
5	3	4
+ 2	1	3
7	4	7

Adding ones:
4 + 3 = 7

Adding tens:
3 + 1 = 4

Adding hundreds:
5 + 2 = 7

So, 534 + 213 = **747**

We first add the ones, followed by tens and finally hundreds.

Sum is always greater than its addends.

Date : _____

Remarks : _____

Teacher's Sign : _____

1. Add the following:

a.

	H	T	O
	2	1	6
+	2	4	3

b.

	H	T	O
	4	1	6
+	2	7	2

c.

	H	T	O
	3	2	2
+	4	4	5

d.

	H	T	O
	2	1	6
+	5	3	1

e.

	H	T	O
	5	2	6
+	2	5	2

f.

	H	T	O
	5	6	3
+	4	1	5

g.

	H	T	O
	3	5	3
+	3	2	4

h.

	H	T	O
	1	4	4
+	3	4	5

2. Add the following:

a.

	H	T	O
	2	1	5
	3	0	4
+	1	5	0

b.

	H	T	O
	4	2	7
	2	5	2
+	3	2	0

c.

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

d.

	H	T	O
	5	1	6
	2	5	1
+	1	2	1

Addition with Carrying Over

Example 1: Add 458 and 485.

Solution:

	H	T	O
	①	①	
	4	5	8
+	4	8	5
	9	4	3

Adding ones:
8 + 5 = 13 ones
13 ones = 10 ones + 3 ones
= 1 ten + 3 ones
We write 3 ones in ones
column and carry over 1
ten to tens column.

Adding tens: 1 (carried over) + 5 + 8 = 14 tens
= 10 tens + 4 tens = 1 hundred + 4 tens
We write 4 tens to tens column and
1 hundred to hundreds column.

Adding hundreds:
1 (carried over) + 4 + 4 = 9
we write 9 hundred
in hundred column.

So, 458 + 485 = **943**

Date : _____

Remarks : _____

Teacher's Sign : _____

Worksheet 12.3

1. Add the following:

a.
	H	T	O
	○	○	
	4	5	8
+	3	6	5

b.
	H	T	O
	○	○	
	2	8	8
+	6	9	7

c.
	H	T	O
	○	○	
	1	6	4
+	7	5	9

d.
	H	T	O
	○	○	
	5	9	6
+	3	2	8

e.
	H	T	O
	○	○	
	2	8	5
+	5	9	6

f.
	H	T	O
	○	○	
	5	9	6
+	3	6	8

g.
	H	T	O
	○	○	
	5	7	3
+	2	5	8

h.
	H	T	O
	○	○	
	3	5	4
+	4	5	6

2. Add the following:

a.
	H	T	O
	○	○	
	4	2	9
	2	3	8
+	1	9	7

b.
	H	T	O
	○	○	
	5	3	6
	1	8	7
+	2	7	5

c.
	H	T	O
	○	○	
	4	6	8
	1	7	6
+	2	8	9

d.
	H	T	O
	○	○	
	2	9	4
	4	6	7
+	1	6	3

e.
	H	T	O
	○	○	
	4	8	8
	2	5	4
+	1	8	5

f.
	H	T	O
	○	○	
	4	3	8
	2	5	6
+	2	3	7

g.
	H	T	O
	○	○	
	3	5	2
	4	3	0
+	1	7	2

h.
	H	T	O
	○	○	
	3	4	8
	2	4	2
+	2	5	4

Date : _____

Remarks : _____

Teacher's Sign : _____

Subtraction without Borrowing

Example 1: Subtract 465 from 879.

Solution:

	H	T	O
	8	7	9
−	4	6	5
	4	1	4

Subtracting ones:
9 − 5 = 4

Subtracting tens:
7 − 6 = 1

Subtracting hundreds:
8 − 4 = 4

Subtraction is always started from ones place digit.

So, 879 − 465 = 414

Worksheet 12.4

1. Subtract the following:

a.

	Th	H	T	O
		5	4	5	3
−		2	3	4	1

b.

	Th	H	T	O
		3	9	6	8
−		2	7	2	4

c.

	Th	H	T	O
		7	4	7	9
−		5	1	6	4

d.

	Th	H	T	O
		5	0	0	8
−		2	0	0	4

e.

	Th	H	T	O
		3	7	0	6
−		1	6	0	4

f.

	Th	H	T	O
		8	9	6	4
−		4	5	3	2

g.

	Th	H	T	O
		3	3	2	7
−		1	2	1	6

h.

	Th	H	T	O
		5	3	8	6
−		3	2	7	2

i.

	Th	H	T	O
		8	6	3	5
−		4	2	1	3

Date : _____
Remarks : _____

Teacher's Sign : _____

Worksheet 12.5

1. **Use the grid below to solve the following questions. Colour your answers in the grid.**

521	522	523	524	525	526	527	528	529	530
511	512	513	514	515	516	517	518	519	520
501	502	503	504	505	506	507	508	509	510
491	492	493	494	495	496	497	498	499	500
481	482	483	484	485	486	487	488	489	490
471	472	473	474	475	476	477	478	479	480
461	462	463	464	465	466	467	468	469	470
451	452	453	454	455	456	457	458	459	460

456 + 10 [ ]   481 + 19 [ ]   489 + 21 + 15 [ ]

405 + 23 [ ]   467 + 51 [ ]   519 − 40 [ ]

2. **Do as directed.**

Add 100	Add 10	Add 1
169	169	169
269		
	189	

Add 100	Add 10	Add 1
354	354	354
		355

Teaching Tips

Encourage children to solve the problems using the above grid. Draw children's attention to the pattern of change in digits when adding 100, 10 and 1.

Date : _____

Remarks : _____

Teacher's Sign : _____

Worksheet 12.6

Draw box diagrams, as shown above to solve the following problems. Then use HTO blocks or a number line to solve the problems.

1. Kishan has 356 saplings in August. He distributed 63 saplings. How many saplings are left with him?

2. Kishan has a collection of 508 saplings. He gets 80 more saplings of flowering plants. How many saplings does he have now?

3. Kishan has 170 saplings of herbs and his friend has 36 saplings of herbs. How many more saplings does Kishan have than his friend?

Critical Thinking Skills

Manav was participating for race competition for the sports day. On the first day, he ran for 32 minutes, on the second day, he ran for 38 minutes and on the third day, he ran for 44 minutes. If he continued this, how many minutes would he have run on the ninth day?

Mental MATHS

1. The sum of 400 and 300 is ....

2. The sum of 400 and 500 is ....

3. The sum of 600 and 200 is ....

4. The sum of 250 and 550 is ....

5. Fill in the blanks:

   a. 428 – 100 = ...

   b. 859 – 100 = ...

   c. 387 – 10 = ...

   d. 164 – 0 = ...

6. 25 less than 300 is equal to ....

7. 60 less than 450 is equal to ....

SEL (Social Responsibility)

The students of class IIIrd made 2000 cards for HAPPY NEW YEAR. They distributed 690 cards to old-age home and 469 cards to orphanage. How many cards were left with them?

MULTIPLE Choice Questions

Tick (✓) the correct option:

1. Each of the numbers added is called ....

   a. sum   b. addend   c. difference   d. none of these

2. The number we get after addition is called ....

   a. sum   b. addend   c. product   d. quotient

3. 6825 + 0 = ...

   a. 0   b. 6825   c. 5835   d. none of these

4. The sum of all the numbers from 1 to 10 is ....

   a. 50   b. 65   c. 55   d. 75

5. 385 + 373 = 373 + ...

   a. 385   b. 273   c. 178   d. none of these

6. The smaller number which is to be subtracted called ....

   a. minuend   b. subtrahend   c. difference   d. sum

7. The result after subtraction is called ....

   a. minuend   b. subtrahend   c. difference   d. none of these

8. The difference between the place values of two 6s in 8606 is ....

   a. 60   b. 600   c. 594   d. none of these

9. 475 – 35 is equal to ....

   a. 475   b. 0   c. 440   d. 376

Money (Currency)

We use money to buy things from the market.

Indian currency is in the form of notes and coins.

Notes

₹ 1 ₹ 2 ₹ 5 ₹ 10

₹ 20 ₹ 50 ₹ 100

₹ 200 ₹ 500

DO YOU KNOW?

In earlier time, 1P, 2P, 5P, 10 P, 20P, 25P, 50P coins were also used but now a days we do not use these coins due to decreasing value of money.

Coins

₹ 1 (coin) ₹ 2 (coin) ₹ 5 (coin) ₹ 10 (coin) ₹ 20 (coin)

₹ 1 = 100 paise

☞ 6 rupees is written as ₹ 6.

☞ 45 paise is written as 45 P.

☞ 38 rupees 68 paise is written as ₹ 38.68.

☞ Dot or point (.) separates the rupees and paise.

The symbol of rupee is ₹

Worksheet 12.7

1. How many notes and coins are required to purchase following things. Tick (✓) the required number of notes:
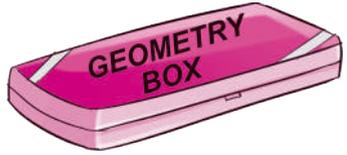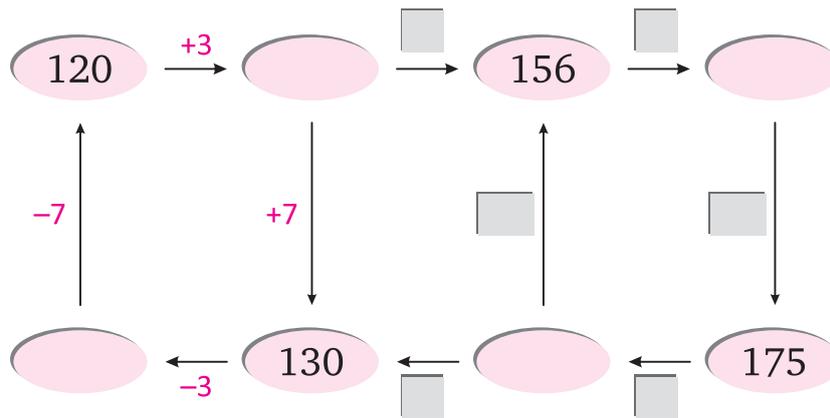

₹ 250

₹ 230

₹ 375

₹ 650

₹ 240

Compare the given problem statements in each row, without calculating. Circle the one that is more. Share your thinking in class.

473 + 23	—	473 + 40
340 + 10	—	304 + 10
800 + 9	—	790 + 60
245 − 45	—	245 − 54
700 − 8	—	600 − 8

Find the pairs that are equal. Share your thinking in class.

| 516 + 100 | 615 − 200 | 350 + 50 |
| 400 + 15 | 450 − 50 | 816 − 200 |

Fill in the boxes with appropriate numbers.

120 →(+3)→ ⬜ → □ → 156 → □ → ⬜

−7 ... +7 ... □ ... □

⬜ ←(−3)← 130 ← ⬜ ←□← 175

Teaching Tips

Encourage mental calculations in the class to solve the problems above. Ask children to frame many such questions.

Date : _____

Remarks : _____

Teacher's Sign : _____

13 Time Goes On

Days of the Week

There are 7 days in a week.

Monday	Tuesday	Wednesday	Thursday
First Day (Ist)	Second Day (2nd)	Third Day (3rd)	Fourth Day (4th)

Friday	Saturday	Sunday
Fifth Day (5th)	Sixth Day (6th)	Seventh Day (7th)

Today, Yesterday and Tomorrow

Today is the present day.

Yesterday is the day before the present day.

Tomorrow is the day after the present day.

Worksheet 13.1

1. **Fill in the blanks:**

   a. Wednesday comes after ....

   b. Friday comes before ....

   c. The fourth day of the week is ....

   d. The first day of the week is ....

2. **Fill in the blanks:**

   a. If today is Sunday, then tomorrow will be ....

   b. If yesterday was Thursday, then today is ....

   c. If tomorrow is Sunday, then today is ....

   d. If today is Friday, then yesterday was ....

Months of the Year

There are 12 months in a year. All months don't have same number of days. These are 365 days in a year and 366 days in a leap year (comes in every 4th years).

First Month	Second Month	Third Month	Fourth Month
January	**February**	**March**	**April**

Fifth Month	Sixth Month	Seventh Month	Eighth Month
May	**June**	**July**	**August**

Ninth Month	Tenth Month	Eleventh Month	Twelfth Month
September	**October**	**November**	**December**

Facts about Months of the Year

☞ There are 7 months in a year, which have 31 days.

☞ There are 4 months in a year, which have 30 days.

☞ February has 28 days in a normal year and has 29 days in a leap year.

☞ The year that has 366 days, is called leap year. 2000, 2004, 2008, 2012, 2016, 2020, 2024, ... etc. are leap years.

Worksheet 13.2

1. **Fill in the blanks:**

    a. The year starts with ....

    b. The third month of the year is ....

    c. The .... month of the year is November.

    d. The .... month of the year is June.

    e. The last month of the year is ....

f. The month that comes before March is ....

g. The month that comes after September is ....

h. The month with 28/29 days is ....

2. Fill in the blanks:

a. The Republic days comes in the month of ....

b. The teacher's day comes in the month of ....

c. The children's day comes in the month of ....

d. The Independence day comes in the month of ....

e. Gandhi Jayanti come in the month of ....

f. Christmas comes in the month of ....

Calendar

JANUARY						
Mo	Tu	We	Th	Fr	Sa	Su
		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						
Mo	Tu	We	Th	Fr	Sa	Su
					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						
Mo	Tu	We	Th	Fr	Sa	Su
31					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

APRIL						
Mo	Tu	We	Th	Fr	Sa	Su
	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						
Mo	Tu	We	Th	Fr	Sa	Su
		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						
Mo	Tu	We	Th	Fr	Sa	Su
30						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

JULY						
Mo	Tu	We	Th	Fr	Sa	Su
	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						
Mo	Tu	We	Th	Fr	Sa	Su
				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						
Mo	Tu	We	Th	Fr	Sa	Su
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						
Mo	Tu	We	Th	Fr	Sa	Su
	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						
Mo	Tu	We	Th	Fr	Sa	Su
					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						
Mo	Tu	We	Th	Fr	Sa	Su
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				

Worksheet 13.3

1. Look at the calendar of this year and answer the following questions:

a. On which day is your birthday?

b. On which day is your father's birthday?

c. On which day is your mother's birthday?

d. On which day is the Republic day?

e. On which day is the children's day?

f. On which day is the teacher's day?

Mental MATHS

1. If today is Tuesday, then yesterday was ....

2. If tomorrow is Saturday, then today is ....

3. If yesterday was Sunday, then today is ....

4. If yesterday was Wednesday, then tomorrow will be ....

5. If today is Sunday, then tomorrow will be ....

MULTIPLE Choice Questions

Tick (✓) the correct option:

1. A week has
   a. 5 days
   b. 6 days
   c. 7 days
   d. 12 days

2. A month has
   a. 30 days
   b. 31 days
   c. 28/29 days
   d. all of these

3. January has
   a. 28 days
   b. 29 days
   c. 30 days
   d. 31 days

4. A leap year has
   a. 364 days
   b. 365 days
   c. 366 days
   d. none of these

Patterns in nature are visible regularities of form found in the natural world. These patterns recur in different contents and can sometimes be modelled mathematically. Natural patterns include symmetries, trees, spirals, meanders, waves, foams, cracks and stripes.
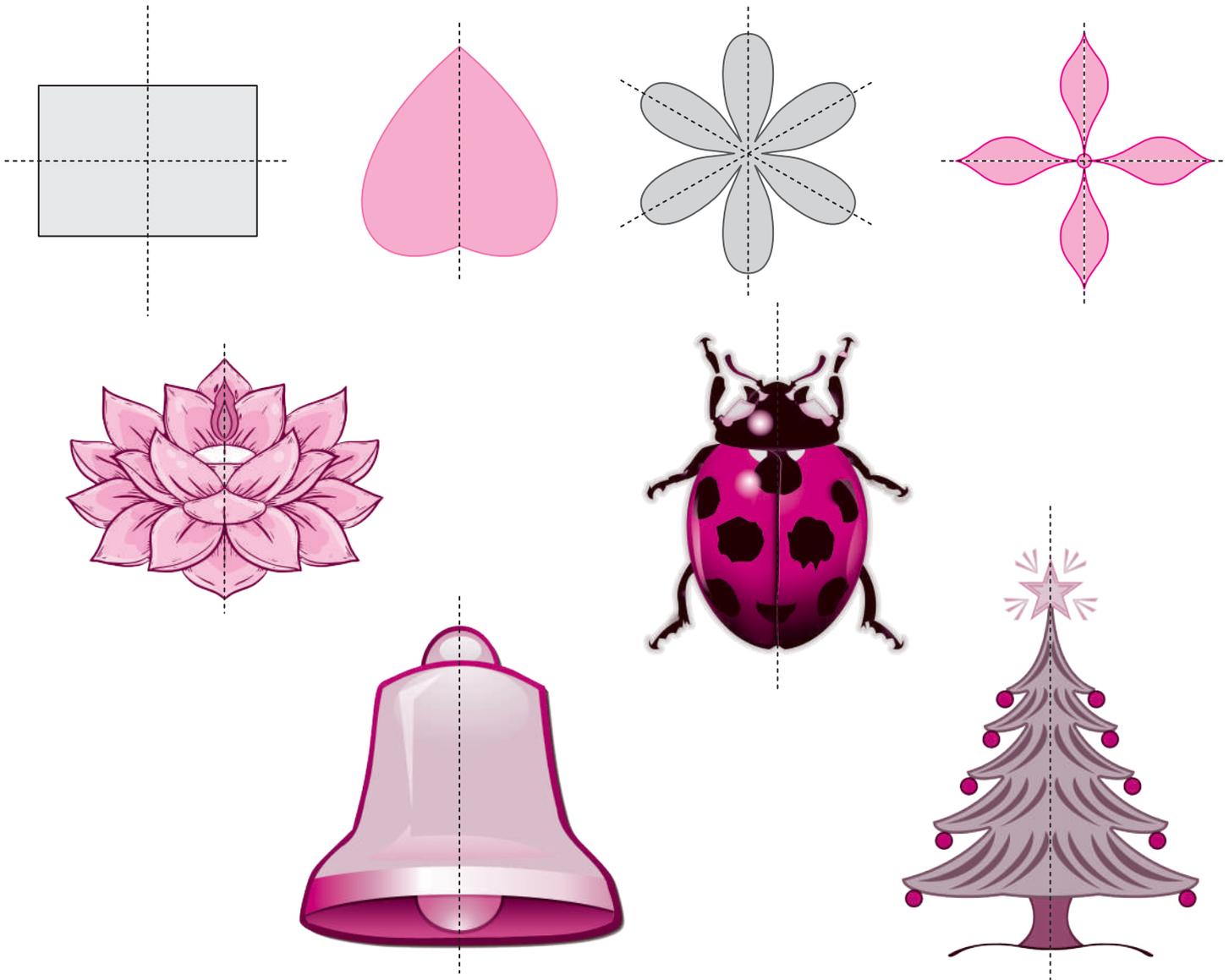
In above figures, we can see different types of patterns in natures, animals, birds, vegetables etc.

Symmetry of Figures

Symmetry refers to the exact match in size and shape between two halves, parts or sides of something.

Figures which are symmetrical about a line are called symmetrical figures and that line is called line of symmetry.

Look at the following figures.
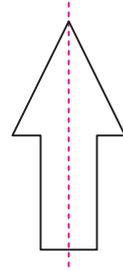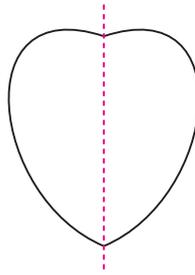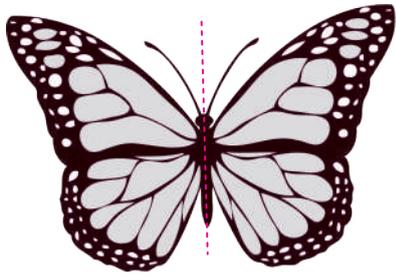
All above figures are symmetrical about dotted line.

Worksheet 14.1
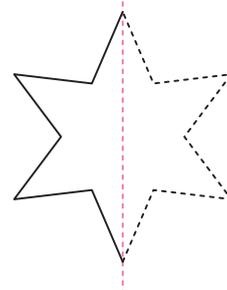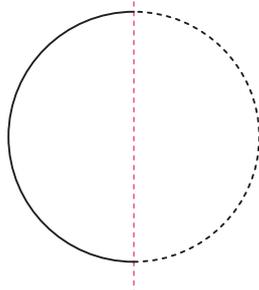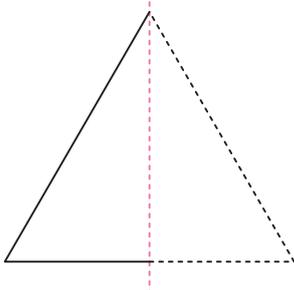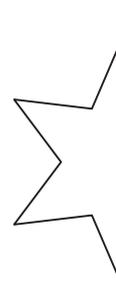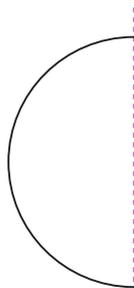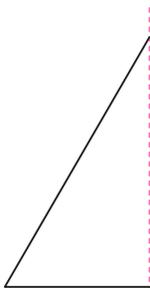
1.   Draw the other halves to make symmetrical shapes:

2. **Write 'Yes' or 'No' for symmetrical figures about dotted line:**

a.
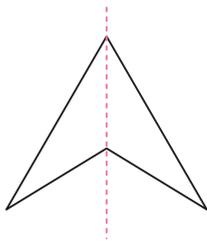
b.

c.
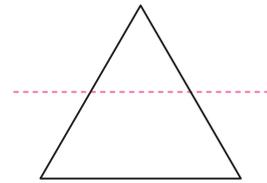
d.
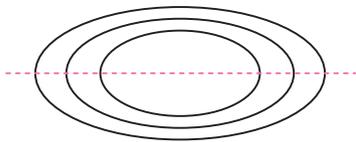
e.
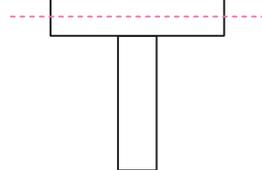
f.
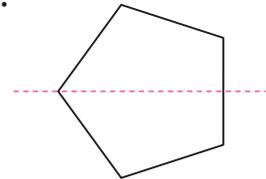
3. **Draw the lines of symmetry for the following figures:**

a.
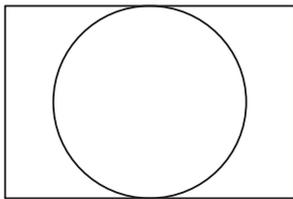
b.
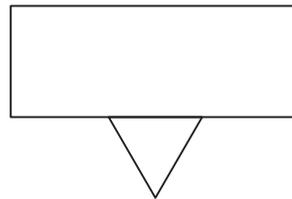
c.
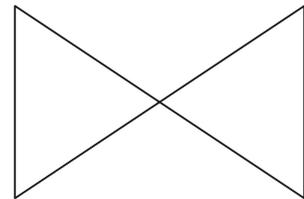
d.
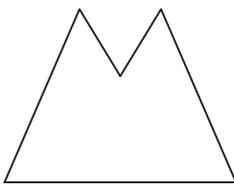
e.
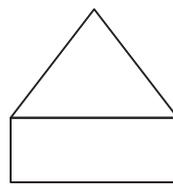
f.
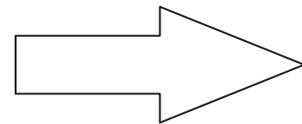
4. **Draw the other halves to make symmetrical shapes:**

a.

b.

c.

d.

e.

f.
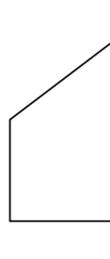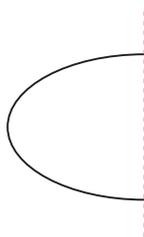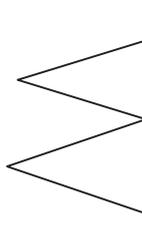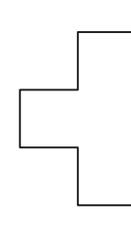
More Patterns

When shapes are repeated again and again, patterns are formed.

Look at the following patterns.
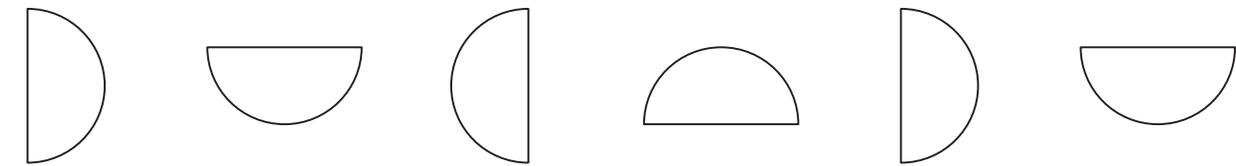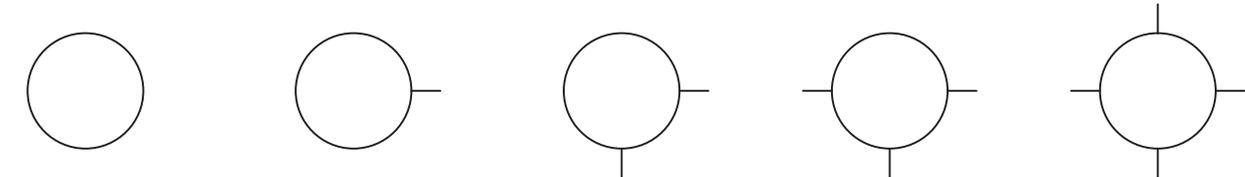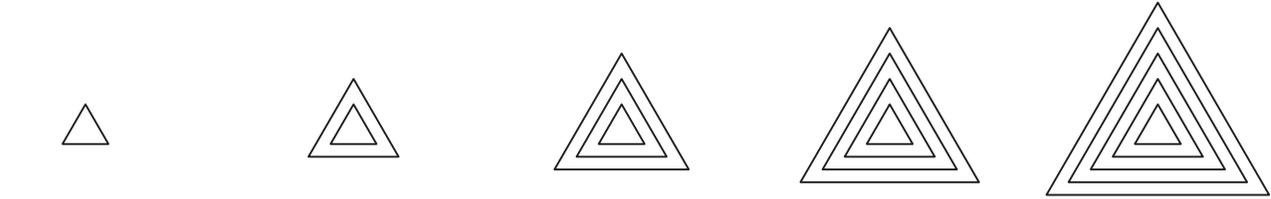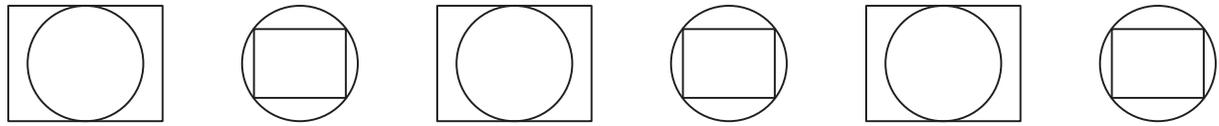
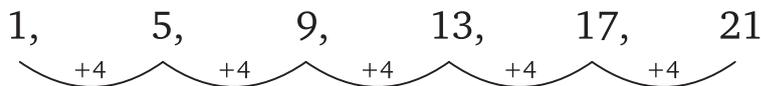## Worksheet 14.2

1. Complete the following patterns:

a.

b.

c.

d.

Number Patterns

Look at the following number patterns:

10,　　20,　　30,　　40,　　50,　　60
　　+10　　+10　　+10　　+10　　+10
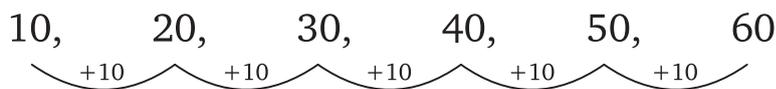
In this series, next number is obtained by adding 10 to it.

1,　　5,　　9,　　13,　　17,　　21
　　+4　　+4　　+4　　+4　　+4

In this series, next number is obtained by adding 4 to it.

Worksheet 14.3

1. Look the pattern of the following series and write the next 3 terms of each series:

a. 90, 80, 70, 60, ..., ..., ...

b. 2, 4, 8, 16, ..., ..., ...

c. 5, 8, 11, 14, ..., ..., ...

d. 2, 4, 6, 8, ..., ..., ...

Critical Thinking Skills

Observe the pattern and fill in the empty boxes.

56　49　14　7　21　35

9　63　18　9　36

Mental MATHS

1. 3, 5, 7, 9, ..., ..., ..., ...

2. AZ BY CX ...., ..., ..., ...

3. △ ○ △ ○　................, ..., ..., ...

4. ╱ ╱╲ ╲╱ △　................, ..., ..., ...
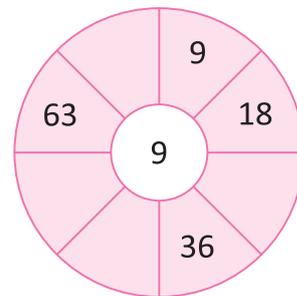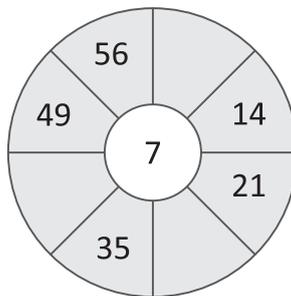
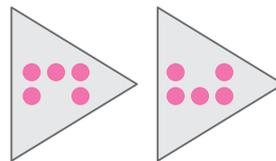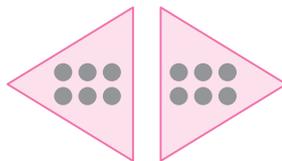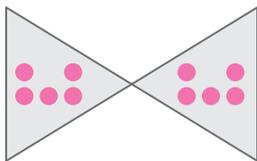5. 15, 13, 11, 9, ..., ..., ..., ...

Observe the pattern of the following pictures and draw and colour them in the given box.
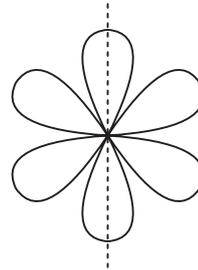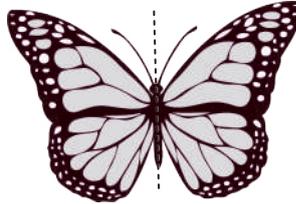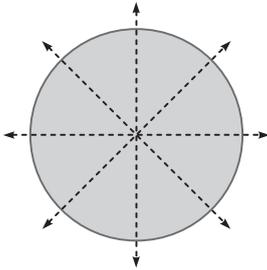
Worksheet 14.4

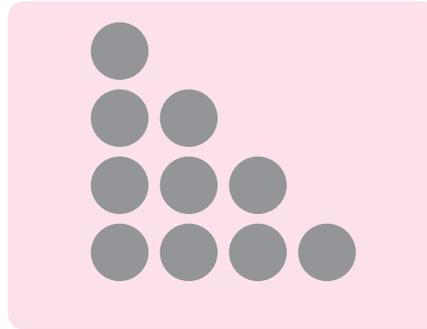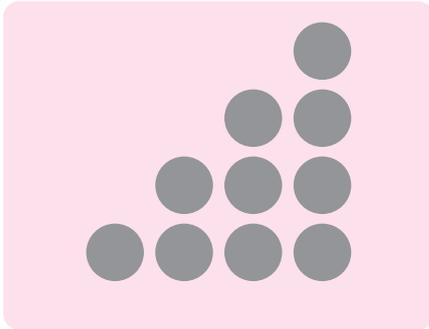1. Pick the odd one out and give reasons.
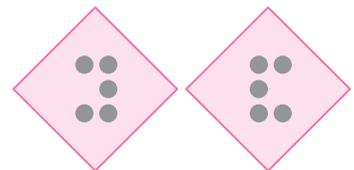
2. Fill 4 boxes with red colour and 3 with blue colour in such a way that one side is the mirror image of the other.
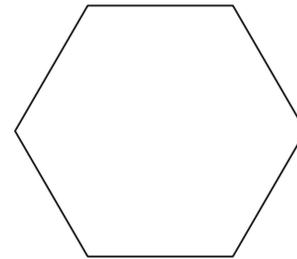
In how many ways can you fill it? Think, think!

3. Make Micy's side the same as that of Catty's side. You can rearrange only three balls in Micy's side.
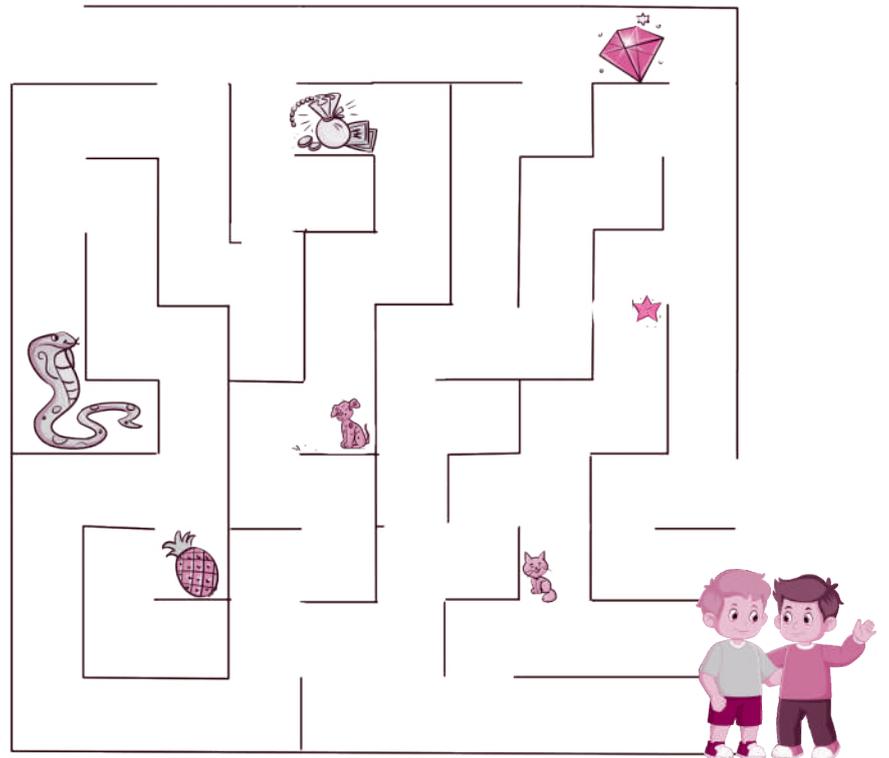

4. Which shape cutouts would fit in the given shape without overlapping and without gaps.

FUN TIME

1. There are two ways to go out of the Surajkund fair. One seems to be a maze and the other goes straight there. Follow the maze with Kannu and Dhruv to exit the fair.

Teaching Tips

In question no 1, each part can be the odd one out. Let the children observe and find the odd one out by giving a logical reason for their answer.

Date : _____

Remarks : _____

Teacher's Sign : _____