7 Patterns

Patterns

When a shape, a picture or a number is repeated in a specific sequence, a pattern is formed. Observe the beautiful pattern in the tiles below.

We see patterns all around us.

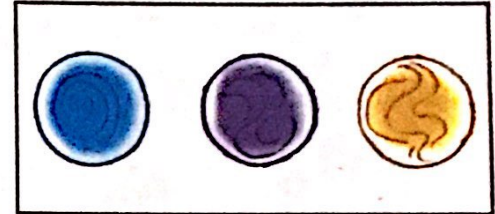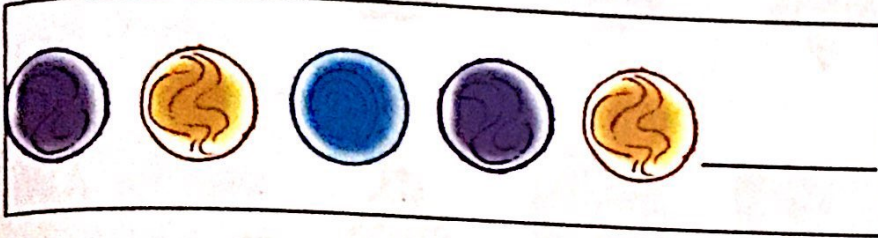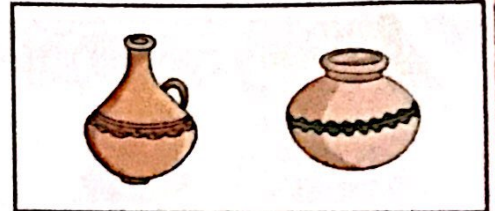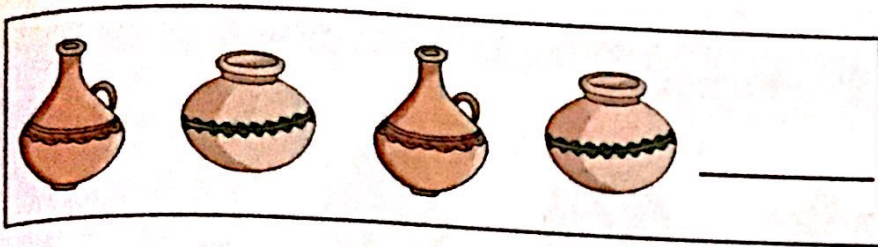> What will come next in the pattern? Encircle the correct object. One has been done for you.
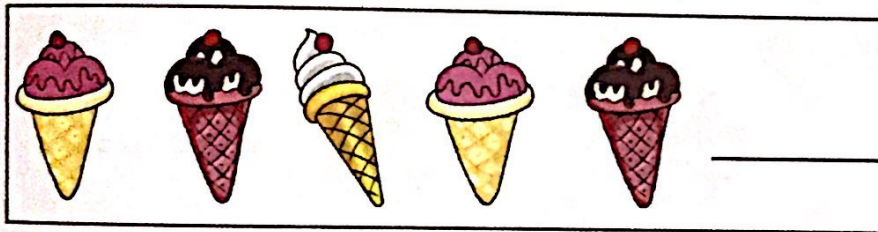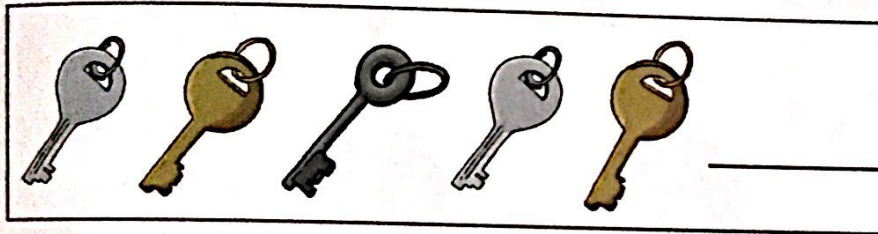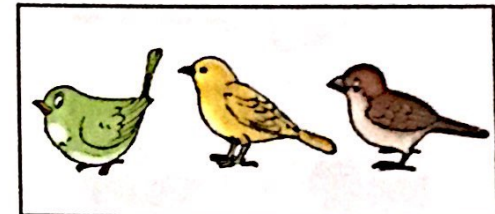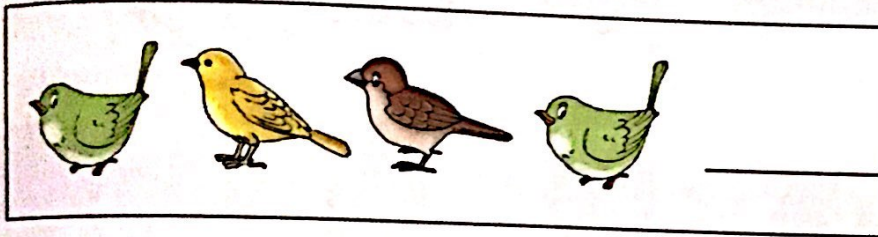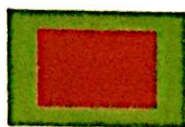
Patterns in Shapes

Look at the following shapes making a pattern.

Draw the shape that will come next.

Row 1: circle, hexagon, star, circle, hexagon, _____

Row 2: circle, triangle, rectangle, circle, triangle, _____

Row 3: heart, star, circle, heart, star, _____

Row 4: circle, circle, circle, circle, _____

Row 5: circle with triangle, circle with band, circle with triangle, circle with band, _____

Row 6: rectangle, rectangle, rectangle, rectangle, rectangle, _____

Row 7: triangle, triangle, triangle, triangle, triangle, _____
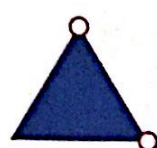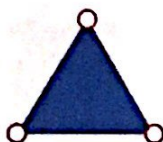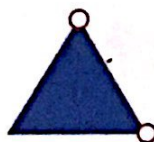
Row 8: e, g, e, g, e, _____

Patterns in Numbers and Letters
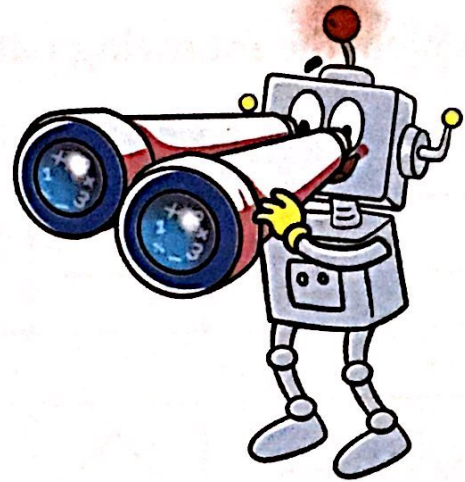
Look at the numbers making a pattern.

1, 3, 5, 7, 9, 11, 13, 15, ...

9, 7, 5, 3, ...

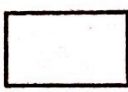Look at these letters making a pattern.
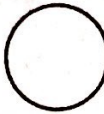
ABB, ABB, ABB, ...

A, C, E, G, I, ...

Write the missing numbers to complete the patterns.
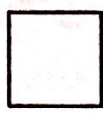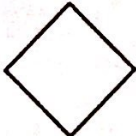
| 30 | 32 | 34 | 36 | 38 | |

| 22 | 25 | 28 | 31 | | |

| 10 | 15 | 20 | 25 | | |

| A | D | G | J | M | |

| Z | Y | X | W | | |

MATHEMATICS

Complete the following patterns.

□	○	▭	○				

△	□	◇	△				

10	20	30	40				

C	E	G	I				

18	16	14	12				

AA	BA	CA	DA				

Objective:

To learn the concept of patterns.

Materials Required:

Bindi packets with small bindis.

Procedure:

1. This activity will be done in pairs. One student of a pair will stick one bindi each in the 4 parts of the Figure 1.

2. Students will take turns in sticking the bindis till 12 bindis are stuck in the Figure 1.

3. Each pair will repeat the same with another set of 12 bindis and stick one bindi at a time in each part of the Figure 2.

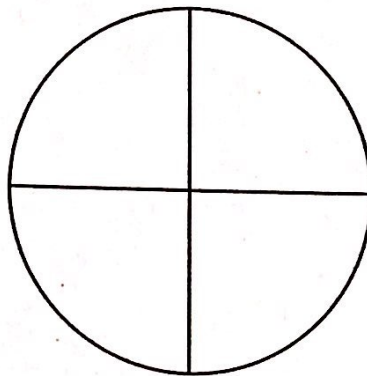4. The same will be done for the next 2 figures, taking more sets of 12 bindis.

5. The students will observe the pattern in each figure.
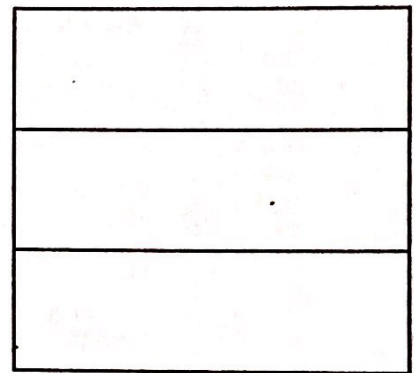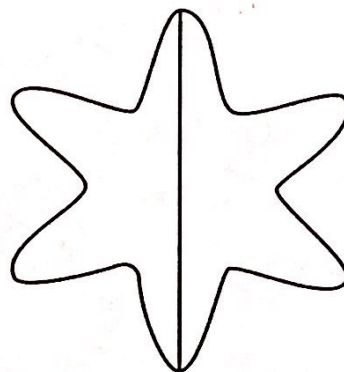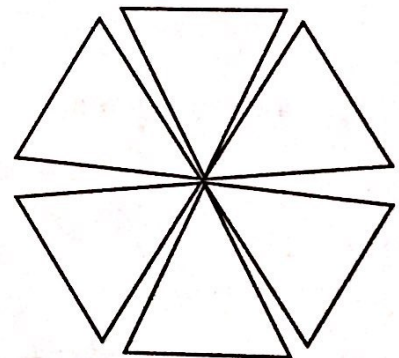
Figure 1

Figure 2

Figure 3

Figure 4

PRACTICE PAPER

A. Count from left and colour the second light yellow and seventh light red.

B. Find the answer.

$$\begin{array}{r} 6\ 1 \\ +\ 2\ 8 \\ \hline \end{array}$$

$$\begin{array}{r} 7\ 6 \\ -\ 2\ 4 \\ \hline \end{array}$$

$$\begin{array}{r} 4\ 4 \\ -\ 2\ 5 \\ \hline \end{array}$$

$$\begin{array}{r} 7\ 8 \\ +\ 1\ 5 \\ \hline \end{array}$$

$$\begin{array}{r} 8\ 4 \\ -\ 5\ 7 \\ \hline \end{array}$$

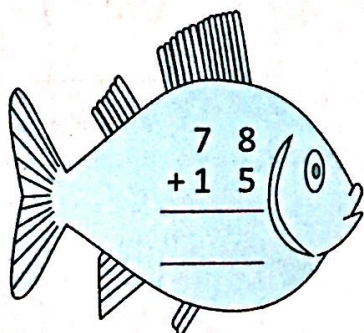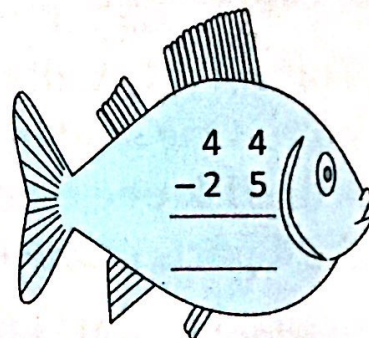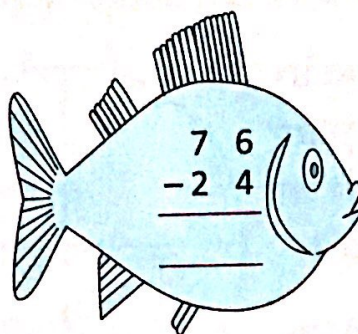$$\begin{array}{r} 6\ 2 \\ +\ 3\ 8 \\ \hline \end{array}$$
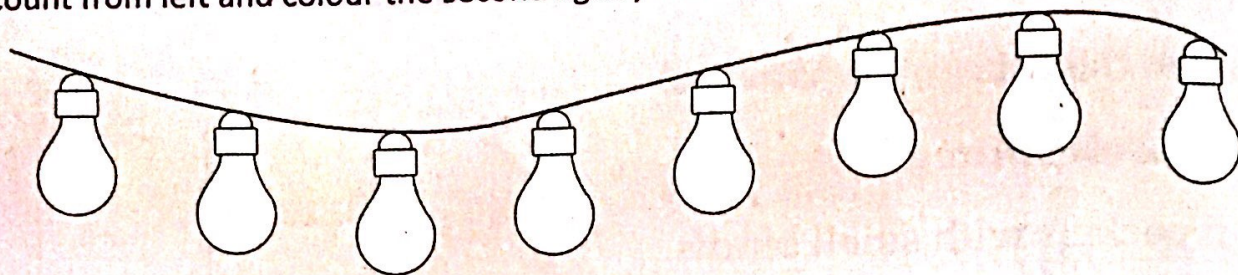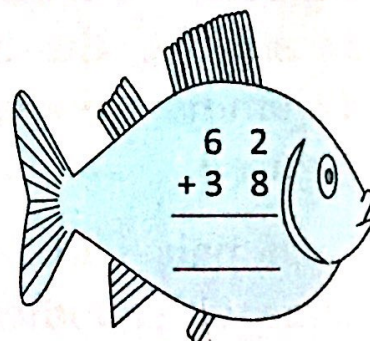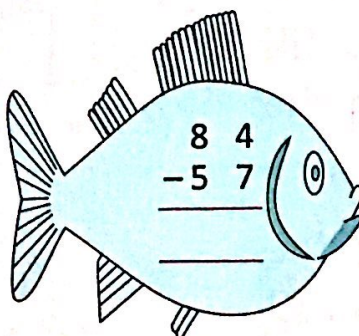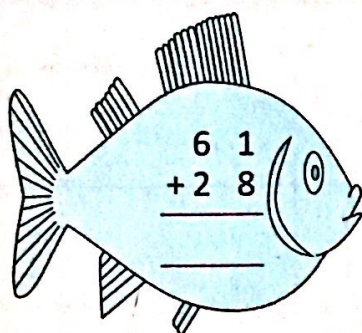
C. Write each number in expanded form.

272

586

421

_____ + _____ + _____   _____ + _____ + _____   _____ + _____ + _____

D. Match the following.

Cone   Cylinder   Sphere   Cube   Cuboid

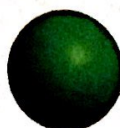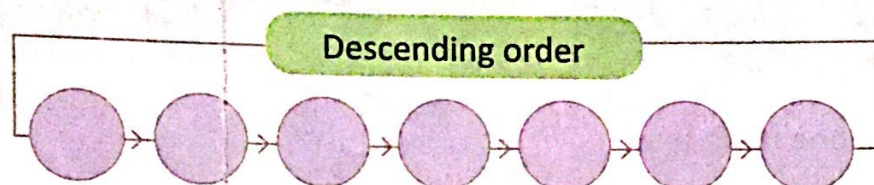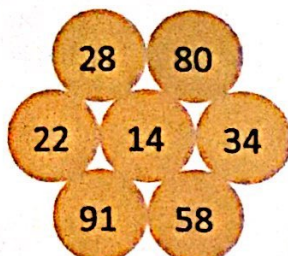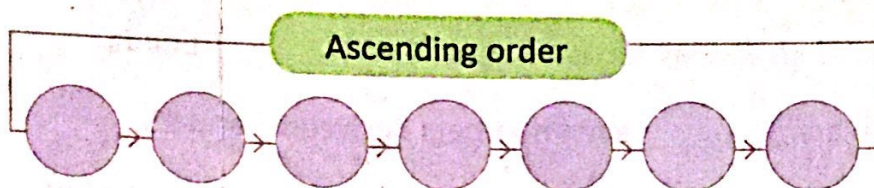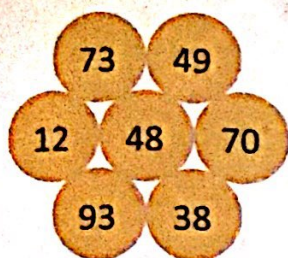**E.** Look at the numbers on each ball. Write the numbers in the correct order.

73 49
12 48 70
93 38

Ascending order

○ → ○ → ○ → ○ → ○ → ○ → ○

28 80
22 14 34
91 58

Descending order

○ → ○ → ○ → ○ → ○ → ○ → ○

F. Find the answer.

H	T	O
3	7	7
+ 2	2	5

H	T	O
6	8	2
+ 2	4	9

H	T	O
6	5	4
− 3	2	3

H	T	O
7	8	4
− 3	5	5

G. Complete the pattern.

100 200 300 ○ ○ ○ ○

B D F ○ ○ ○ ○
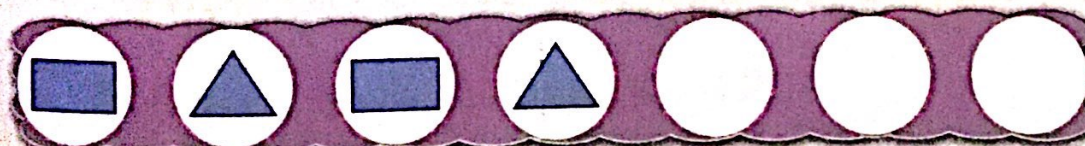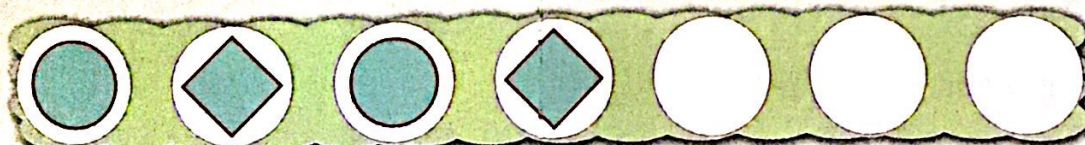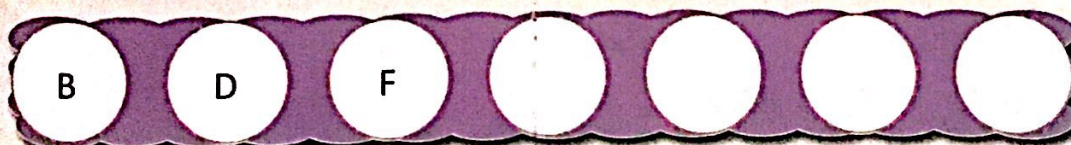
MENTAL MATHS ZONE

A. A rod of an abacus can have maximum _____ beads.

B. There are _____ even numbers between 5 and 15.

C. Tick (✓) the circle which is at the sixth position from the right.

⬤ ⬤ ⬤ ⬤ ⬤ ⬤ ⬤ ⬤ ⬤

D. 432 is one more than _____.

E. A _____ has no edge and no vertex.

F. Which number will come next in the pattern below?

12, 15, 18, 21, 24, [ ]

G. Place value of 8 in 682 is _____.

H. 4 tens + 3 ones = _____

I. 7 hundreds + 9 tens + 1 one = _____

J. 386 = 300 + _____ + 6

K. 3 less than 199 is _____.

L. 8 more than 155 is _____.

M. 234 + 190 = 190 + _____

N. The descending order of 16, 43, 89, 21 is

_____, _____, _____, _____.

O. 393 = _____ hundreds + _____ tens + 3 _____.