# Chapter 9: Utsav

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## Exercise 9.1 — Extend the patterns by drawing

**Q1** Pattern A: Look at the picture pattern shown and extend it by drawing the next part.

SOLUTION

Pattern A repeats: stone, stick, stone, stick. Draw the next part: a stone, then a stick.

**Q2** Pattern B: Look at the picture pattern shown and extend it by drawing the next part.

SOLUTION

Pattern B repeats: 3 mango leaves hanging, then 1 flower hanging. The next part to draw is: 3 mango leaves hanging on the string.

**Q3** Pattern C: Look at the picture pattern shown and extend it by drawing the next part.

SOLUTION

Pattern C repeats: diya (oil lamp), candle, diya, candle. The next part to draw is: a diya.

**Q4** Pattern D: Look at the picture pattern shown and extend it by drawing the next part.

SOLUTION

Pattern D repeats: star, bead-string, star, bead-string, star. The next part to draw is: a bead-string.

Q5 Pattern E: Look at the picture pattern shown and extend it by drawing the next part.

SOLUTION

Pattern E is a toran (bunting) with alternating coloured triangular flags. Extend by continuing the same alternating colour sequence of flags.

Q6 Pattern F: Look at the picture pattern shown and extend it by drawing the next part.

SOLUTION

Pattern F is a fabric border tile: a blue chevron/zigzag strip with a yellow rectangle, pink square, yellow rectangle repeating unit. Extend by drawing the same repeating tile unit.

Q7 Pattern G: Look at the picture pattern shown and extend it by drawing the next part.

SOLUTION

Pattern G: a plate holds 1 yellow coin and 1 brown chocolate stick. Draw the next plate with the same two items: a yellow coin and a brown stick.

Q8 Pattern H: Look at the picture pattern shown and extend it by drawing the next part.

SOLUTION

Pattern H: a plate holds 1 pink round button and 1 green oval button. Draw the next plate with the same two items: a pink round and a green oval.

## Exercise 9.2 — Let us Do — Thumb and finger print pattern

**Q1** Munna created a pattern using the impression of his thumb and fingers. Create a pattern like this using your fingerprint in the given space. What colour should come after pink, and why?

SOLUTION

The fingerprint pattern shown is: pink, black, pink, black. The colour that comes after pink is BLACK, because the pattern repeats — pink and black take turns.

**Q2** Collect different vegetables, cut them into slices (with adult help), and use the cut slices to create a pattern of your choice.

SOLUTION

Choose 2 or 3 different vegetables (like okra, carrot, or capsicum).
Dip the cut face in paint and stamp them on paper in a repeating order.
For example: okra, carrot, okra, carrot — repeat this unit to make a pattern.
Make sure the same unit repeats at least 3 times.

## Exercise 9.3 — Look at patterns and extend by colouring

**Q1** Look at the colour patterns shown and extend them by colouring the next parts.

SOLUTION

Row 1 (circles): red, blue, red, blue, red — colour the next three: blue, red, blue. Row 2 (shapes): yellow triangle, green square — colour the next three: green square, yellow triangle, green square. Row 3 (arrows): the unit is purple-up, blue-right, black-down — colour the outlines in the same three-colour cycle. Row 4 (hexagon and stars): blue hexagon, pink star, pink star — colour the outlines: blue hexagon, pink star, pink star.

## Exercise 9.4 — Complete the pattern

**Q1** Look at the incomplete pattern and complete it.

SOLUTION

Row 1 (triangles): 1 triangle, 2 triangles, 3 triangles — the next box has 4 blue triangles, and the last box has 5 blue triangles. Row 2 (L-shapes growing): |, ⌐, ∩ (two-sided), the missing 4th box is a three-sided open square (∩ with a left side added), and the 5th box is a closed square □. Row 3 (green inverted triangles): alternates between a full block of 4×4 triangles and a half block — draw the missing box as a half block of 4 triangles. Row 4 (boats with trees): 4 trees on boat, 3 trees, 2 trees, 1 tree — the missing last box is a boat with 0 trees (an empty boat).

## Exercise 9.5 — Study the pattern and fill in the missing numbers

**Q1** Study the number pattern shown and fill in the missing numbers.

SOLUTION

Pattern 1 (flags): 1, 3, 5, 7, __, 11 — add 2 each time. Missing number: 9. Pattern 2 (caterpillar, right to left): 16, 17, __, __, 20, 21, 22 — subtract 1 each time. Missing numbers: 18 and 19. Pattern 3 (train): 10, 20, 30, __, 50 — add 10 each time. Missing number: 40. Pattern 4 (beads): 11, 22, 33, __, __, 66 — add 11 each time. Missing numbers: 44 and 55. Pattern 5 (lily pads): 5, 10, __, 20 — add 5 each time. Missing number: 15. Pattern 6 (flowers): 2, 5, 8, 11, __, __ — add 3 each time. Missing numbers: 14 and 17.

## Exercise 9.6 — Complete the kolam

Q1 Murthy and Vani are helping their Amma make a kolam (rangoli). Help them by completing the kolam shown below.

SOLUTION

The kolam is symmetric. The left half shows four curved petal-shapes (like a 4-petal flower) with dots in the centre and at each corner. Complete the right half by drawing the same four curved petal-shapes and dots so both halves mirror each other — the kolam looks the same on the left and right.

## Exercise 9.7 — Project Work

Q1 Collect pebbles, flowers, leaves, glasses, bowls, sticks, bangles, coins, caps, etc., and arrange them in a pattern. Create different patterns of jewellery, floral pot arrangements, art showpieces, etc.

SOLUTION

Pick 2 or 3 different objects (like pebbles and leaves).
Arrange them in a repeating order: pebble, leaf, pebble, leaf.
Try making a longer pattern or a circular pattern.
You can also arrange objects in a line to look like a necklace or a garland.

Q2 Observe and find patterns in nature — like on leaves, butterfly wings, animal skins (cat, dog, zebra, tiger), curtains, sarees, dupattas, tiles, beehives, etc.

SOLUTION

Look carefully at a butterfly wing — both sides have the same pattern (symmetric).
A zebra's stripes repeat all over its body — that is a repeating pattern.
Tiles on a floor often repeat the same shape or colour.
Share what pattern you found and describe the repeating unit.

Q3 Collect different objects seen around you and make a collage.

SOLUTION

Collect small flat objects like leaves, flower petals, paper pieces, or fabric scraps.
Arrange them on a sheet of paper in any design you like.
Stick them down with glue.
Try to use a repeating pattern in your collage.

Q4 Create patterns using different actions like clapping, snapping your fingers, stamping your feet, etc.

SOLUTION

Choose 2 or 3 actions (for example: clap, snap, stamp).
Repeat them in the same order: clap, snap, stamp, clap, snap, stamp.
Ask a friend to join and keep the pattern going.
This is a sound and movement pattern — just like a picture pattern, the unit repeats.