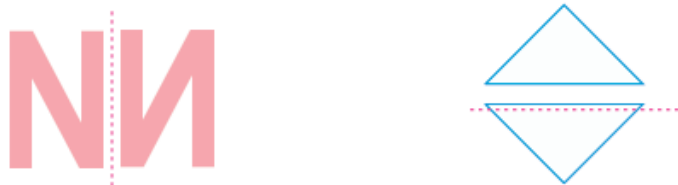### Understanding the Topic

- These are ways to move or change the position of a shape without changing its size or shape.
- A slide means moving a shape from one place to another without rotating or flipping it.
- A flip means turning the shape over to create a mirror image, also called reflection.
- A turn means rotating the shape around a point by a certain angle like $\frac{1}{4}$ turn or $\frac{1}{2}$ turn.
- These movements are called transformations in geometry.
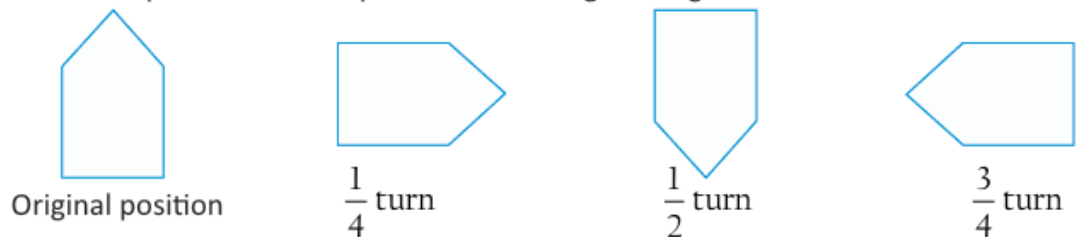- The shape remains the same in size and appearance after slide, flip or turn.

Slide : A slide takes place when a shape moves in one direction from one place to another.

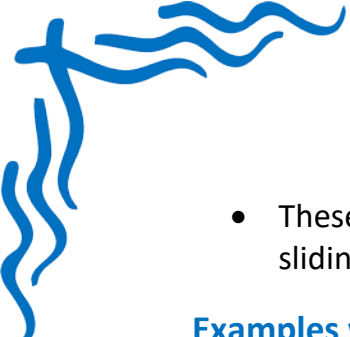**Flip :** A flip takes place when a shape is flipped across a line and faces the opposite direction.

Turn : A turn takes place when a shape is turned through an angle.

Original position $\frac{1}{4}$ turn $\frac{1}{2}$ turn $\frac{3}{4}$ turn

Important Points to Remember

- Slide is also called translation
- Flip is also called reflection
- Turn is also called rotation
- After a slide, the direction of the shape does not change
- After a flip, the shape appears reversed
- After a turn, the shape rotates around a fixed point
- All three transformations help understand patterns, designs and symmetry

- These movements are used in real life, like rotating a fan, flipping a page, sliding a drawer

Examples with Solutions

1. **Slide Example**

   Question: A triangle is moved 3 steps to the right. What type of movement is this.

   Solution: This is a slide. The triangle is shifted without changing direction.

2. **Flip Example**

   Question: A shape is turned over along a line and looks like its mirror image. What is this movement

   Solution: This is a flip. The shape has been reflected.

3. **Turn Example**

   Question: A square is rotated $\frac{1}{4}$ turn clockwise. What will happen.

   Solution: The square will turn 90 degrees clockwise, changing its direction but not its shape.

4. **Real-Life Example**

   Question: You open a book and turn the page. What type of transformation is this.

   Solution: This is a flip because the page turns over like a mirror.

5. **Pattern Recognition**

   Question: A design repeats by turning a triangle again and again around a point. What movement is shown

   Solution: This is a turn, also called rotation

Summary Points

- Slide moves the shape without changing direction.

- Flip creates a mirror image of the shape.

- Turn rotates the shape around a fixed point.

- Shape and size remain the same in all movements.

- Slides, flips, and turns are important to understand patterns, design, and geometry in daily life.