Nets

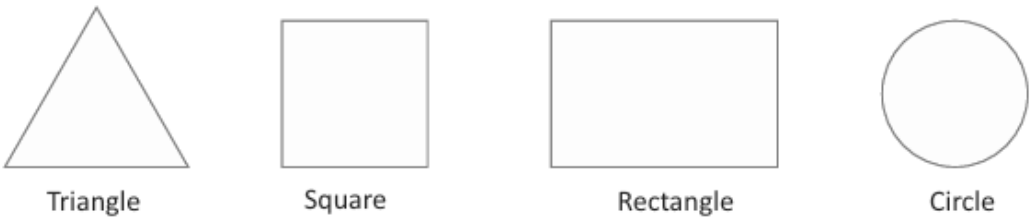
Understanding the Topic

- A net is a flat pattern that can be folded to make a 3D shape
- It shows all the faces of a solid figure in one layout
- When folded along the edges, the net becomes a cube, cuboid, cone, or any other solid

Why Learn Nets?

- Helps understand the shape and structure of 3D solids
- Useful in building boxes and models
- Makes it easy to find surface area and volume

2-dimensional shapes



Three dimensional shapes

Common Nets

- Cube – 6 equal squares
- Cuboid – 6 rectangles (opposite faces equal)
- Pyramid – base and triangle faces
- Cylinder – 2 circles and 1 rectangle (curved surface)

Net Must Have

- Correct number of faces
- Proper size and shape
- All parts must fit together when folded

Examples with Solutions

1. Cube Net (Easy)

Question: A cube has 6 square faces Draw its net

Solution: Draw 6 equal squares connected in a “T” or “cross” shape

2. Cuboid Net (Moderate)

Question: A cuboid has length 5 cm, breadth 3 cm, height 2 cm What shapes will be in its net

Solution: 6 rectangles – 3 pairs of equal rectangles

2 of 5 × 3, 2 of 5 × 2, 2 of 3 × 2

3. Identify Shape (Easy)

Question: A net has 2 circles and 1 rectangle Which 3D shape will it make

Solution: Cylinder

4. Real-life Use (Moderate)

Question: A box is opened and laid flat What is this flat shape called

Solution: Net of the box

5. Making a Pyramid (Moderate)

Question: A square pyramid has 1 square and 4 triangle faces What will its net look like

Solution: One square in the middle and 4 triangles attached to its sides

Summary Points

- A net is a 2D layout of a 3D solid
- Helps visualize how solids are formed
- Cube has 6 squares, cuboid has 6 rectangles
- Cylinder’s net has 2 circles and 1 rectangle
- Useful in packaging, designing, and folding models
- All faces in a net must be correct in size and number
- Understanding nets improves spatial thinking
- Helps in learning surface area and volume
- Practice drawing nets for better understanding
- Folding paper nets is a fun activity to learn shapes