



Tiling Patterns

Understanding the Tiling Patterns

- Tiling patterns are designs made by repeating shapes to cover a surface without leaving gaps or overlapping
- These are also called tessellations
- Common shapes used in tiling are squares, triangles, hexagons, and rectangles
- Tiling patterns are used in floors, walls, mosaics, art, and architecture
- Recognizing and creating tiling patterns helps build spatial thinking and creativity

Examples with Solutions

Example: Which shape can tile a floor without gaps: square, circle, triangle?

- ✓ A square and a triangle can fit without gaps, but circles leave spaces

Answer: Square and triangle

Example: If a pattern repeats in this order: red square, blue triangle, red square, blue triangle, what comes next?

- ✓ After blue triangle comes red square

Answer: Red square

Example: A tile pattern uses 1 hexagon followed by 2 triangles. What will be the 4th tile?

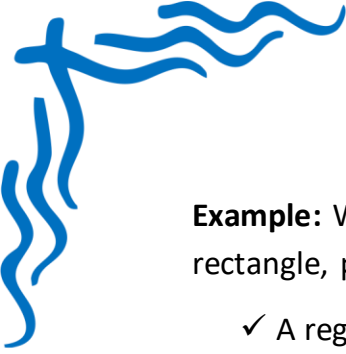
- ✓ 1st = hexagon,
- 2nd = triangle,
- 3rd = triangle,
- 4th = hexagon

Answer: Hexagon

Example: A pattern of rectangles is placed side by side with no gaps. Is this a tiling pattern?

- ✓ Yes, because it repeats and covers space completely

Answer: Yes



Example: Which of the following shapes cannot make a proper tiling pattern: square, rectangle, pentagon?

- ✓ A regular pentagon leaves gaps when tiled

Answer: Pentagon

Summary Points

- Tiling patterns repeat shapes to cover surfaces without gaps or overlaps
- Squares, triangles, rectangles, and hexagons make perfect tiling patterns
- Circles and pentagons do not tile perfectly
- Tiling is used in real-life designs like floors, walls, and artwork
- Understanding tiling patterns improves visual sense and creativity