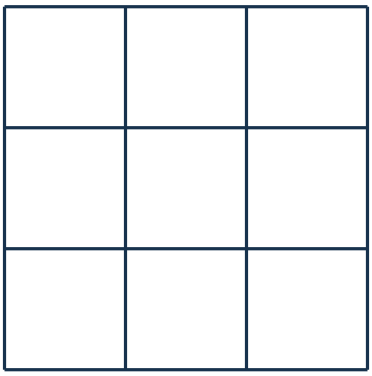
1 How many squares?

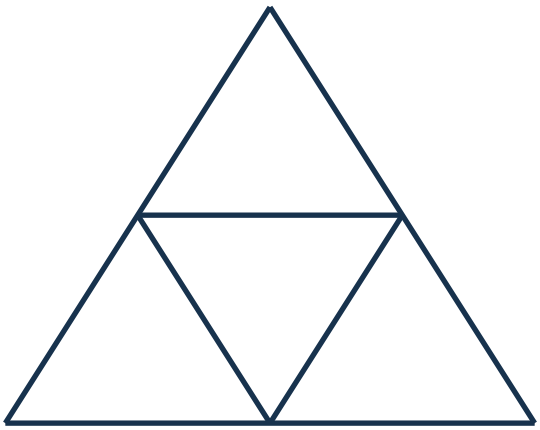
Count squares of every size, including the largest.



Answer: _____ squares

2 How many triangles?

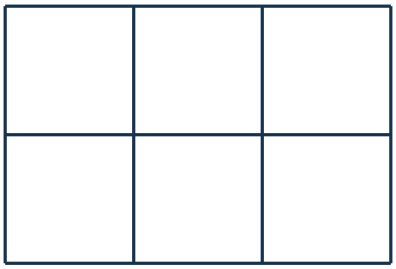
Find all the small and large triangles in the picture.



Answer: _____ triangles

3 How many rectangles?

Count all rectangles in the 3 × 2 grid. Squares count as rectangles too.

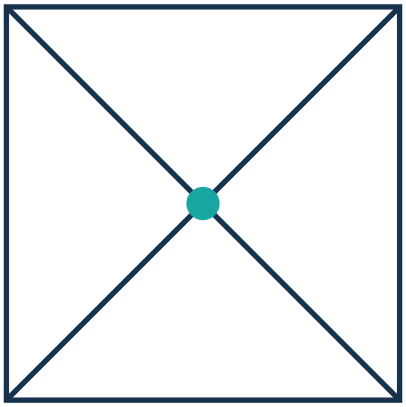


Count every size, including squares.

Answer: _____

4 Triangles in a square

Both diagonals are drawn in a square. How many triangles can you find in total?



The diagonals meet at the centre.

Answer: _____

5 Lines of symmetry

Which shape has exactly two lines of symmetry: A, B, C or D?

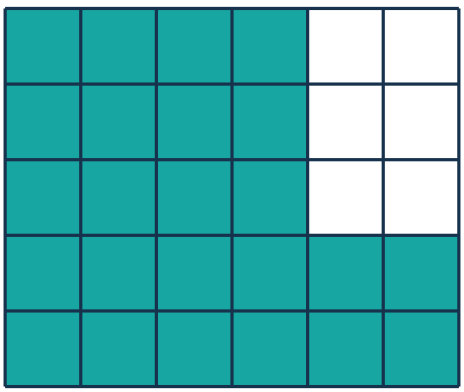


A B C D

Answer: _____

6 Area of a shape

Find the shaded area. Each square has an area of 1 square unit.



Each square has an area of 1.

Answer: _____

Answers and explanations

Try the puzzles first, then compare your reasoning with the explanations.

1 How many squares?

14 squares.
Count by size: 9 small squares, 4 squares made of four cells, and 1 large outer square. Total: 9 + 4 + 1 = 14.

2 How many triangles?

5 triangles.
There are 4 small triangles, including the upside-down one in the centre, and 1 large outer triangle. Total: 4 + 1 = 5.

3 How many rectangles?

18 rectangles.
There are 6 pairs of lines for the left and right edges and 3 pairs for the top and bottom. Each combination makes a rectangle: 6 × 3 = 18. Squares count too.

Answers and explanations

Continued: puzzles 4-6

4 Triangles in a square

8 triangles.
The diagonals make 4 small triangles around the centre. Another 4 large triangles each cover half the square. Total: 4 + 4 = 8.

5 Lines of symmetry

Shape A, the rectangle.
It has two lines of symmetry: horizontal and vertical through its centre. A square has four; an equilateral triangle has three.

6 Area of a shape

24 square units.
The whole grid has 6 × 5 = 30 cells. The unshaded top-right corner has 2 × 3 = 6 cells. Shaded area: 30 - 6 = 24.

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