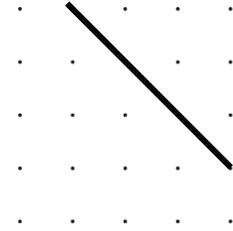


Shapes

Use the properties of rectangles to deduce related facts and find missing lengths and angles.

- Complete the rectangles on the grids below.



- Why is a square a special rectangle?
- Join 4 dots together to make a rectangle.



- The perimeter of the rectangle is 45cm.



Find the length of the rectangle.

- Here is a rectangle.



What is the sum of angles a and b?

Find angle c.

- A shape has 4 right angles. It has 4 straight sides. It has 2 pairs of parallel lines. Draw what the shape could be. Is there more than one option?

- A rectangular classroom has a perimeter between 20 and 25 cm. What could the dimensions be?



- A rectangular classroom has an area between 20 and 25 cm. What could the dimensions be?

- A shape is made up of a square and rectangle.

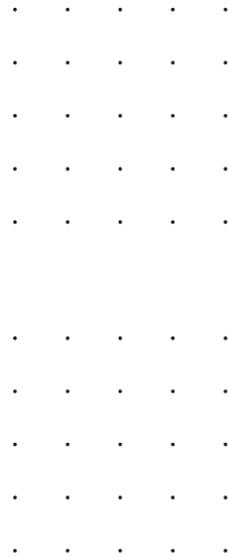


The perimeter of the shape is 70cm. The area of the square is 121cm^2 . What is the area of the rectangle?

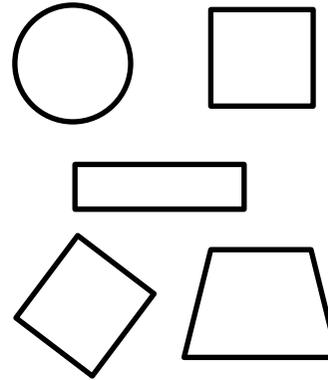
Shapes

Distinguish between regular and irregular polygons based on reasoning about equal sides and angles.

- Name 4 irregular 4 sided polygons.
- Name 5 regular polygons.
- Draw a regular polygon and an irregular polygon on the grids below.



- Tick the regular quadrilaterals.



Explain your choices.

- **Always, sometimes, never.** The number of equal angles is the same number of equal sides in a regular polygon.

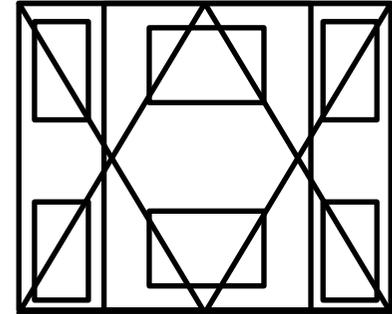
- Adam says,

All the angles are equal in a regular polygon so that must mean a rectangle is a regular polygon.

Is Adam correct? Why?

- Cut out lots of different regular and irregular shapes. Ask children to work in pairs and sort them into groups. Once they have sorted them, can they find a different way to sort them again?

- How many regular and irregular polygons can you find in this picture?



- This grid is made up of squares. How many small squares could fit inside?

