

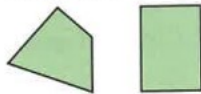
A 2-D shape with straight sides is a polygon.

## TRIANGLES



A 2-D shape with three straight sides is a triangle.

## QUADRILATERALS



A 2-D shape with four straight sides is a quadrilateral. Squares and rectangles are quadrilaterals.

## OTHER POLYGONS



5 sides – pentagon  
6 sides – hexagon  
7 sides – heptagon  
8 sides – octagon

A regular polygon has all sides and angles equal.

### Example

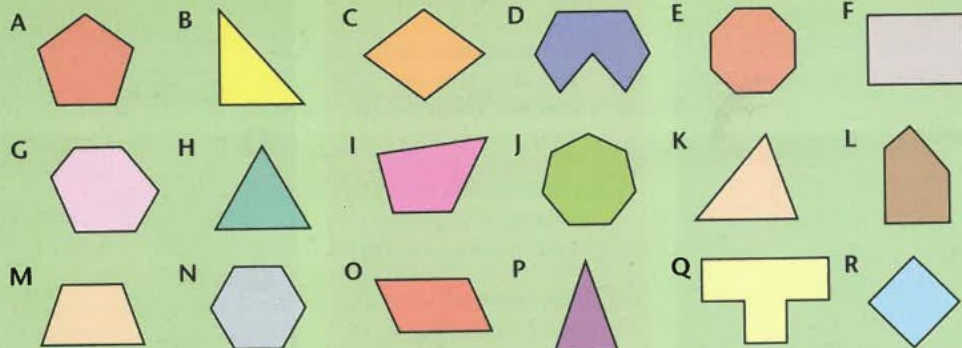
Regular pentagon.



## A

1 For each of the following shapes write down:

- the letter
- the number of sides
- the name of the shape.

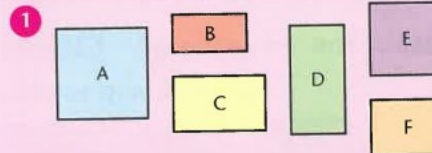


2 Which of the above shapes have a right angle?

3 What is the largest possible number of right angles in:

- a triangle
- a quadrilateral
- a pentagon?

## B



Which of the above shapes:

- has the longest side
- has the shortest side
- has the largest area
- has the smallest area?



Which of the above triangles:

- has three equal sides
- have two equal sides
- have a right angle
- have an obtuse angle?

Look at the shapes in Section A. Write down the letter of all the shapes which:

- are quadrilaterals
- have 2 or more obtuse angles
- have more than 2 lines of symmetry
- have 1 or more pairs of parallel sides
- have 2 or more acute angles
- have 2 or more pairs of perpendicular sides
- are not symmetrical
- have 6 or more sides.
- Draw a pentagon with:
  - 2 acute angles
  - 3 acute angles
  - 4 acute angles.

## C

Copy the Carroll diagrams and use them to sort the shapes in Section A.

	more than 4 sides	not more than 4 sides
regular		
not regular		

	symmetrical	not symmetrical
less than 5 sides		
not less than 5 sides		

- Copy or trace the symmetrical shapes in Section A. Draw on the lines of symmetry.
- Use squared paper to draw the following shapes.
  - a quadrilateral with equal sides but not equal angles
  - a quadrilateral with one line of symmetry and two angles greater than  $90^\circ$
  - a quadrilateral with one line of symmetry and one angle greater than  $180^\circ$
  - a quadrilateral with one pair of parallel sides and no line of symmetry.
- Draw a hexagon with two angles greater than  $180^\circ$ .
- Draw a pentagon with two angles greater than  $180^\circ$ .