

Instructions: Work out the shape maths and use the answer bank to check. Read the Did you know? box. Number the 4 steps in order, tick True or False, match each word to its meaning, then write short answers.

1. Shape maths

Answer bank: **110°** **180°** **60°** **90°**

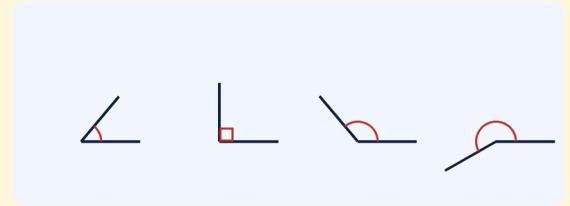
Question	Answer
Angles on a line: $180^\circ - 70^\circ =$	
A quarter turn is...	
Around a point: $360^\circ - 300^\circ =$	
A half turn is...	

About this topic

Geometry starts with a point: an exact place with no size. A line goes on forever in both directions. A line segment has two end points, like the edge of a ruler. A ray starts at one point and goes on forever in one direction, like a torch beam. Two lines that never meet, however far they go, are parallel (think of railway tracks).

Did you know?

- The word 'degree' for angles goes back to ancient astronomers, who split the circle into 360 parts.
- A right angle is marked with a small square, not a curve.
- Ice skaters call a full spin a 'three-sixty'.



Types of angle

2. Put the steps in order

Write 1 to 4 in the boxes (1 = first).

- ☐ Line up: Lay the zero line along one arm
- ☐ Check: Compare your reading with your estimate
- ☐ Estimate: Decide if the angle is acute, right, obtuse or reflex
- ☐ Read: Read where the other arm crosses the scale

3. True or false?

A 30° angle is acute.	☐ True	☐ False
Parallel lines meet at a point.	☐ True	☐ False
A straight angle is 180° .	☐ True	☐ False
Longer arms make a bigger angle.	☐ True	☐ False

4. Match up

Write the letter of the right meaning in the box.

Vertex	A. An angle between 90° and 180° .
Acute angle	B. The point where the two arms of an angle meet.
Obtuse angle	C. Lines that are always the same distance apart and never meet.
Parallel	D. An angle smaller than 90° .

5. Short answers

- What do we call the point where two arms of an angle meet?

- Name an object with a right angle.

- Is 150° acute or obtuse?

- Explain in your own words: Explain what an angle measures, in your own words.

- Stretch: How can you tell if you read the wrong scale on a protractor?

