

**YEAR 5**

Angles and Shape

Written answers, as CSSE sets them, with the degree sign on every angle. Before you calculate, say which fact you are using: angles on a straight line make 180° , round a point make 360° , and inside a triangle make 180° .

Name: _____

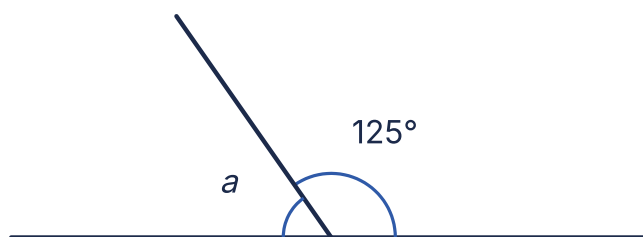
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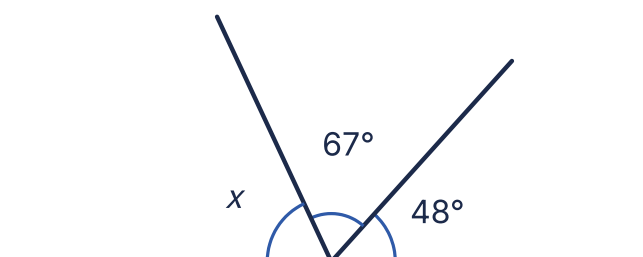
A. Angles on a line and round a point

A straight line is half a turn. All the way round is a whole turn.

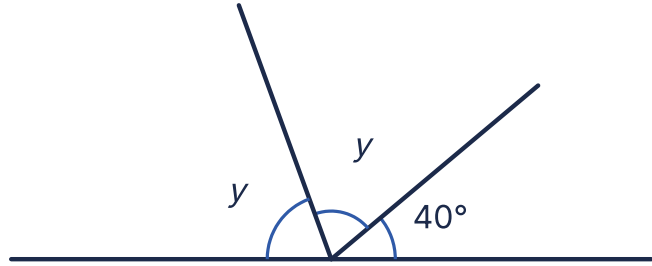
- ① Find angle a .



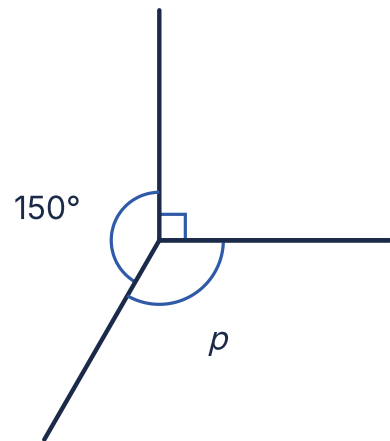
- ② Find angle x .



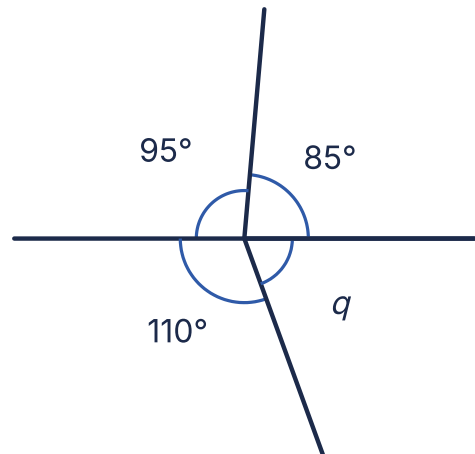
- 3 The two angles marked y are equal. Find y .



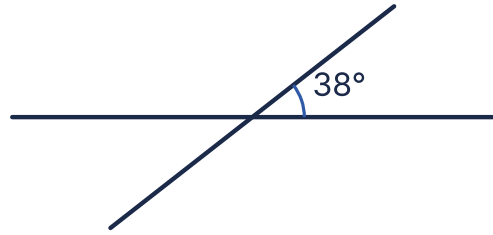
- 4 Find angle p .



- 5 Find angle q .



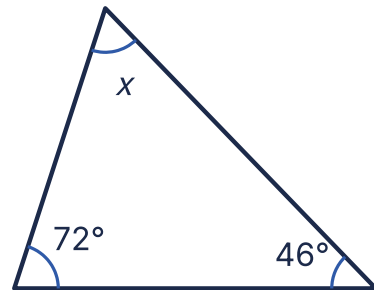
- 6 Two straight lines cross. One of the angles is 38° . Find the other three angles.



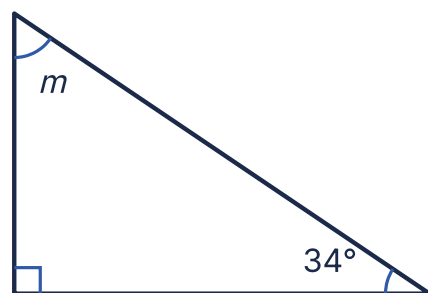
B. Triangles and quadrilaterals

Triangles make 180° . Four-sided shapes make 360° .

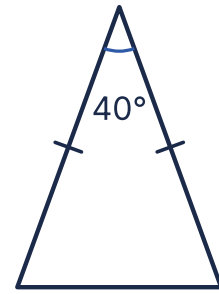
- 7 Find angle x .



- 8 This triangle has a right angle. Find angle m .



- 9 This triangle is isosceles: the two marked sides are equal. The angle at the top is 40° . Find the two angles at the bottom.

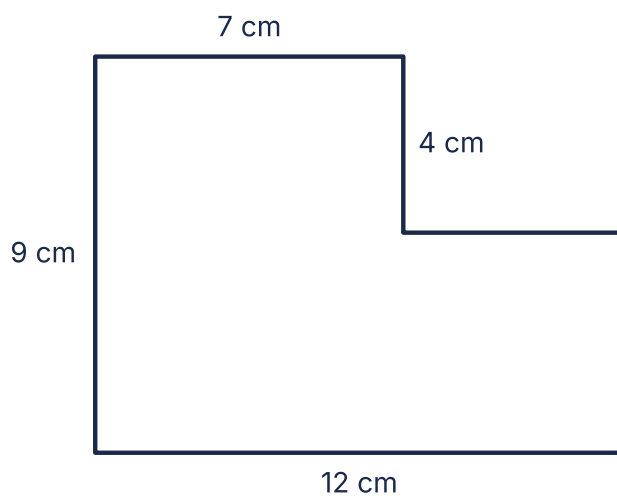


- 10 In an isosceles triangle, the two equal angles are each 65° . What is the third angle?
- 11 Three of the angles in a quadrilateral are 85° , 110° and 70° . What is the fourth angle?
- 12 The angles inside a pentagon add up to 540° . What is each angle of a **regular** pentagon?

C. Problems

Write the fact, then the working, then the answer with its unit.

- 13 All the corners of this shape are right angles. Find its perimeter.



14 Two angles on a straight line are in the ratio 2 : 7. What is the larger angle?

15 What is the smaller angle between the hands of a clock at 4 o'clock?

16 Sam faces north and turns 270° clockwise. Which direction is Sam facing now?

17 The angles of a triangle are x , $2x$ and $3x$. What is the largest angle?

18 A regular hexagon has a perimeter of 42 cm. How long is each side?
