

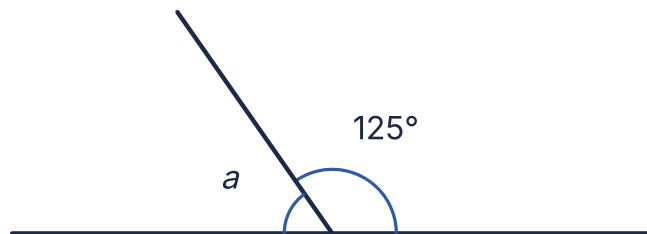
**YEAR 5**

Angles and Shape

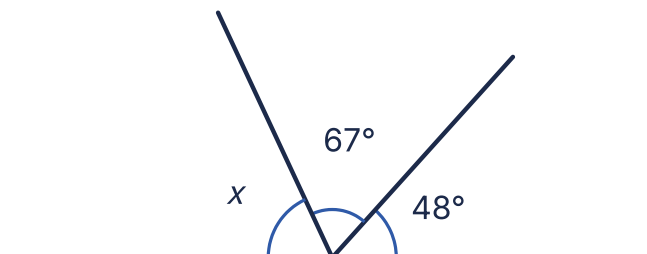
Written answers, as CSSE sets them, with the degree sign on every angle. Before you calculate, say which fact you are using: angles on a straight line make 180° , round a point make 360° , and inside a triangle make 180° .

A. Angles on a line and round a point

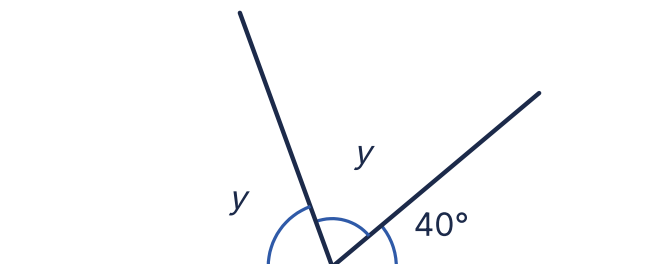
- 1 Find angle a . **55°**



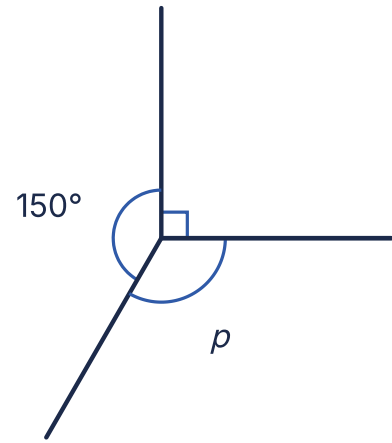
- 2 Find angle x . **65°**



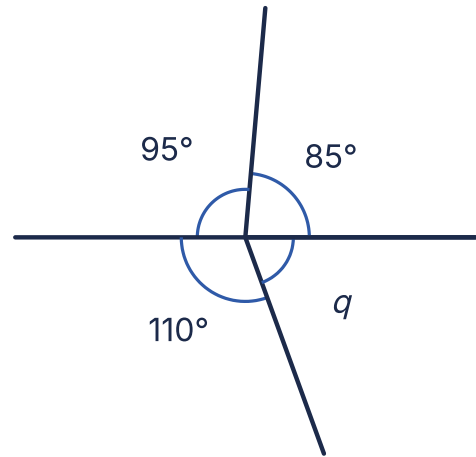
- 3 The two angles marked y are equal. Find y . **70°**



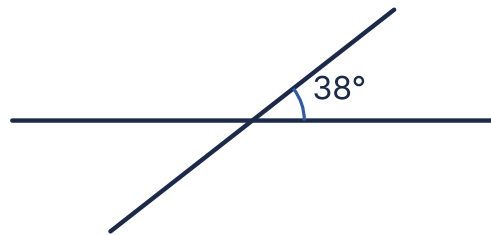
- 4 Find angle p . **120°**



- 5 Find angle q . **70°**

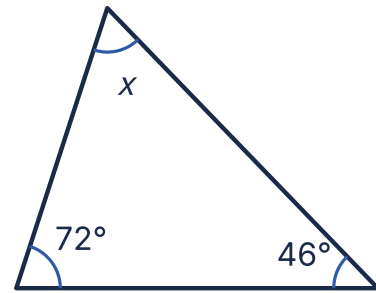


- 6 Two straight lines cross. One of the angles is 38° . Find the other three angles.
 142° , 38° and 142°

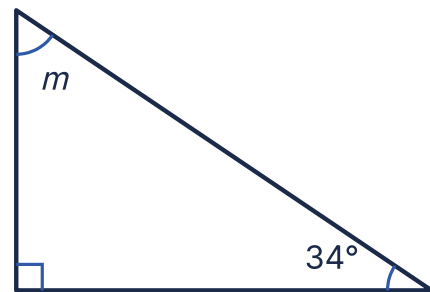


B. Triangles and quadrilaterals

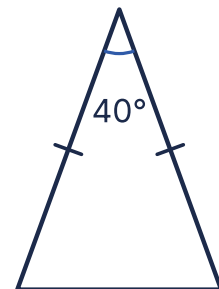
- 7 Find angle x . **62°**



- 8 This triangle has a right angle. Find angle m . **56°**



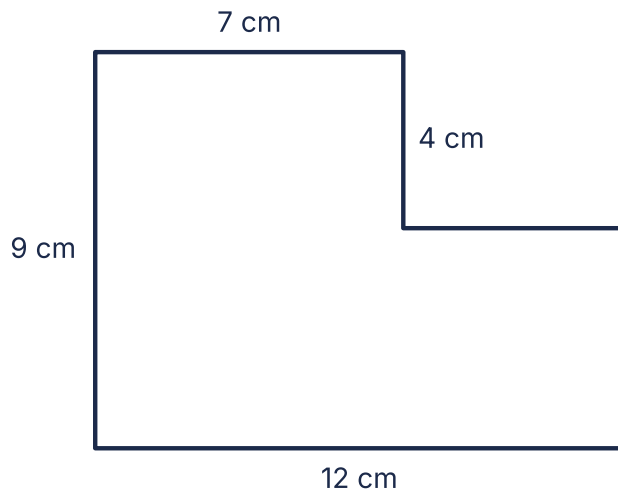
- 9 This triangle is isosceles: the two marked sides are equal. The angle at the top is 40° . Find the two angles at the bottom. **70° and 70°**



- 10 In an isosceles triangle, the two equal angles are each 65° . What is the third angle? **50°**
- 11 Three of the angles in a quadrilateral are 85° , 110° and 70° . What is the fourth angle? **95°**
- 12 The angles inside a pentagon add up to 540° . What is each angle of a **regular** pentagon? **108°**

C. Problems

- 13 All the corners of this shape are right angles. Find its perimeter. **42 cm**



- 14 Two angles on a straight line are in the ratio 2 : 7. What is the larger angle? **140°**
- 15 What is the smaller angle between the hands of a clock at 4 o'clock? **120°**
- 16 Sam faces north and turns 270° clockwise. Which direction is Sam facing now?
West
- 17 The angles of a triangle are x , $2x$ and $3x$. What is the largest angle? **90°**
- 18 A regular hexagon has a perimeter of 42 cm. How long is each side? **7 cm**