



- 1 Write down the mathematical name for an angle that is greater than 90° but less than 180° .

(1 mark)

An angle between 90° and 180° is called an obtuse angle

obtuse

- 2 Here are four angles.

45° 90° 130° 300°

Write down the type of each angle.

(2 marks)

$45^\circ < 90^\circ$: acute

90° : right angle

$90^\circ < 130^\circ < 180^\circ$: obtuse

$180^\circ < 300^\circ < 360^\circ$: reflex

acute, right, obtuse, reflex

- 3 Ali measures an angle with a protractor. One arm of the angle lines up with 0 on the outer scale. The other arm goes through 38 on the outer scale.

Write down the size of the angle.

(1 mark)

read the scale that starts at 0

38°

- 4 An angle has size 210° .

Write down the mathematical name for this type of angle.

(1 mark)

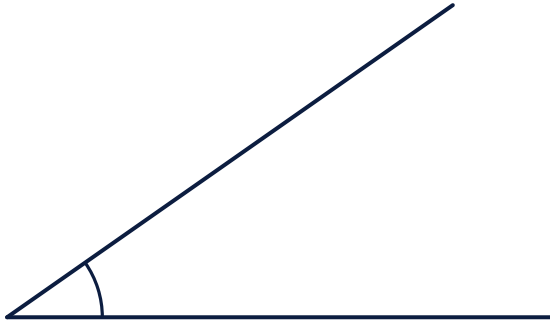
An angle greater than 180° but less than 360° is called a reflex angle, and 210° is between 180° and 360°

reflex

5

The diagram shows an angle.

- Use a protractor to measure the angle.
- Write down the type of angle.



(2 marks)

a)

Centre on the corner, 0 along one arm

Read the scale that starts at 0

35°

b)

Less than 90°

acute

6

A clock shows 5 o'clock.

- Work out the angle between the hands of the clock.
- Write down the type of this angle.

(2 marks)

$$360 \div 12 = 30^\circ \text{ per hour}$$

a)

$$5 \times 30 = 150$$

150°

b)

$$90^\circ < 150^\circ < 180^\circ$$

obtuse

7 A wheel turns through three-quarters of a full turn.

- Write down the size of the turn in degrees.
- Write down the type of this angle.

(2 marks)

a)

$$360 \div 4 = 90$$

$$90 \times 3 = 270$$

$$270^\circ$$

b)

$$180^\circ < 270^\circ < 360^\circ$$

reflex

8 Describe how to use a protractor to draw an angle of 65° .

(2 marks)

- draw a base line
- centre on the end, line up with 0
- mark 65 on the scale from 0
- join the mark to the end

angle of 65°

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The diagram shows an angle.

- Use a protractor to measure the angle.
- Write down the type of angle.



(2 marks)

a)

Centre on the corner, 0 along one arm

Use the scale that starts at 0

125°

b)

Between 90° and 180°

obtuse

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Lee measures an acute angle with a protractor. He reads 130°.

Explain why Lee cannot be correct and write down the angle he should have read.

(2 marks)

acute means $< 90^\circ$, but $130^\circ > 90^\circ$

wrong scale: the two readings add to 180°

$$180 - 130 = 50$$

50°

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At a point, the angle inside a shape measures 70° . The reflex angle at the same point is on the outside of the shape.

Work out the size of the reflex angle.

(2 marks)

angles at a point add to 360°

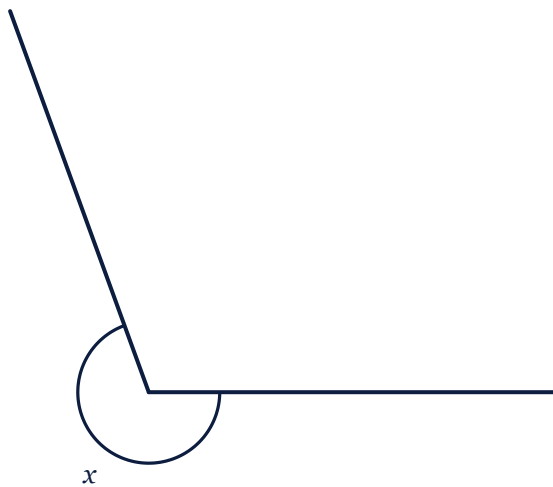
$$360 - 70 = 290$$

290°

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The diagram shows two lines meeting at a point.

- Use a protractor to measure the obtuse angle between the lines.
- Work out the size of the reflex angle marked x .



(3 marks)

a)

110°

b)

Angles round a point = 360°

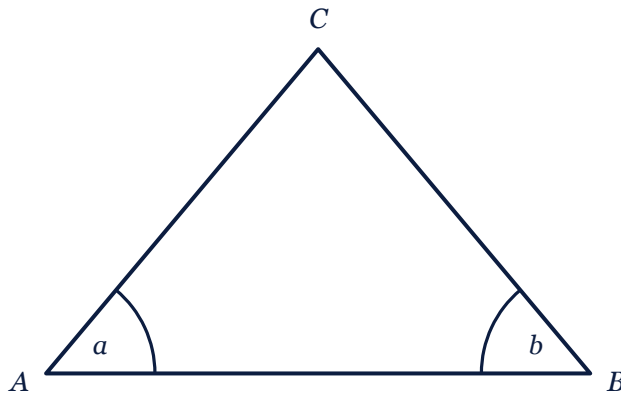
$$360 - 110 = 250$$

$$x = 250^\circ$$

13

The diagram shows triangle ABC .

- Use a protractor to measure angle a and angle b .
- Write down the mathematical name of this type of triangle.
- Work out the size of angle ACB .



(4 marks)

a)

$$a = 50^\circ, b = 50^\circ$$

b)

Two equal angles

isosceles

c)

Angles in a triangle = 180°

$$180 - 50 - 50 = 80$$

$$\text{angle } ACB = 80^\circ$$