

GCSE Maths: Geometry words and notation (Foundation): answers

GCSE Maths - Angles, Polygons and Symmetry - Foundation - Lesson 17.1

Answers. Final answers to the worksheet questions. Full step-by-step solutions for every question are free at websink.site/gcse/maths/ch17-angles-polygons-symmetry/foundation/geometry-words-and-notation/

Exercise 17A Words, notation and naming angles Non-calculator

1 Write the correct geometry word for each description.

- (a) Two lines that always stay the same distance apart.

Answer: parallel

- (b) Two lines that meet at 90° .

Answer: perpendicular

- (c) A corner of a polygon.

Answer: vertex

- (d) A closed flat shape with straight sides.

Answer: polygon

- (e) A polygon with all sides equal and all angles equal.

Answer: regular polygon

- (f) The piece of a line between two points.

Answer: line segment

2 Write down the name of each type of angle.

- (a) 35°

Answer: acute

- (b) 90°

Answer: right angle

- (c) 150°

Answer: obtuse

- (d) 180°

Answer: straight line

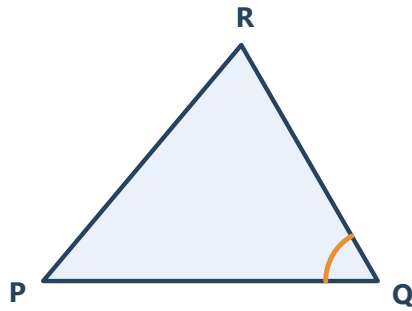
- (e) 270°

Answer: reflex

- (f) 89°

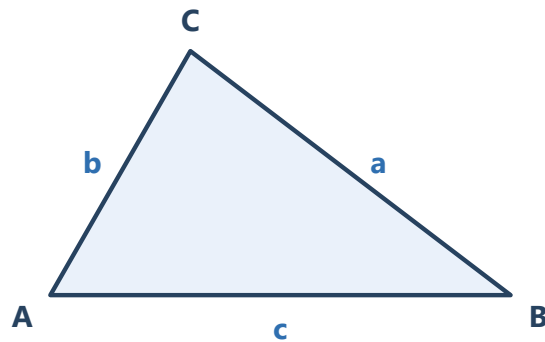
Answer: acute

3 Write the three-letter name of the angle marked with an arc in this triangle.



Answer: angle PQR (or angle RQP)

4 Triangle ABC is shown.



(a) Which side is opposite angle A?

Answer: a (the side BC)

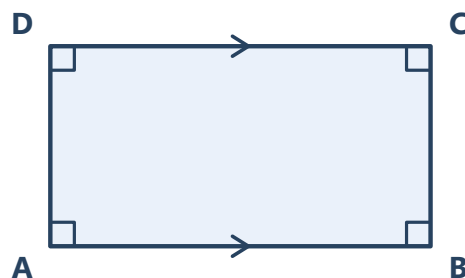
(b) Which side is opposite angle B?

Answer: b (the side AC)

(c) Which angle is opposite side c?

Answer: angle C

5 ABCD is a rectangle. Use the diagram to complete each statement with parallel or perpendicular.



(a) AB and DC are ____.

Answer: parallel

(b) AB and BC are _____.

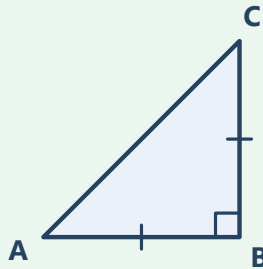
Answer: perpendicular

(c) Write down the names of two vertices that are joined by an edge of the rectangle.

Answer: for example A and B

6 Draw a sketch of triangle ABC where angle ABC = 90° and AB = BC. (Mark the right angle and the equal sides.) What type of triangle is it?

Answer:



isosceles right-angled triangle

7 Complete the table for each regular polygon.

(a) A pentagon: how many sides and how many vertices?

Answer: 5 sides and 5 vertices

(b) A hexagon: how many sides and how many vertices?

Answer: 6 sides and 6 vertices

(c) A octagon: how many sides and how many vertices?

Answer: 8 sides and 8 vertices

(d) A decagon: how many sides and how many vertices?

Answer: 10 sides and 10 vertices

8 A cube has 6 faces. Write down the number of its (a) vertices (b) edges.

(a) vertices

Answer: 8

(b) edges

Answer: 12

9 Say whether each statement is **true** or **false**.

(a) A square is a type of rectangle.

Answer: True

(b) Parallel lines meet at a right angle.

Answer: False

- (c) A regular hexagon has six equal sides and six equal angles.

Answer: True

10 Write the correct name for each triangle.

- (a) A triangle with all three sides equal.

Answer: equilateral

- (b) A triangle with exactly two equal sides.

Answer: isosceles

- (c) A triangle with no equal sides.

Answer: scalene

- (d) A triangle with one angle of 90° .

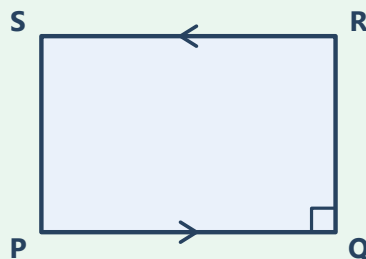
Answer: right-angled

11 Two lines, PQ and RS, are both perpendicular to a third line, TU. What can you say about PQ and RS? Draw a sketch to explain.

Answer: PQ and RS are parallel

12 Sketch a quadrilateral PQRS where PQ is parallel to SR and angle PQR = 90° . Mark the information on your sketch.

Answer:



(any quadrilateral with $PQ \parallel SR$ and a right angle at Q)

13 Write each as a statement in words.

- (a) $AB = 5 \text{ cm}$

Answer: The line segment AB is 5 centimetres long.

- (b) angle $XYZ = 40^\circ$

Answer: The angle at Y, between YX and YZ, is 40 degrees.