2.12 Angles and Shape: 10-minute Pack

GL ASSESSMENT GL · Calculators not allowed · about 10 minutes

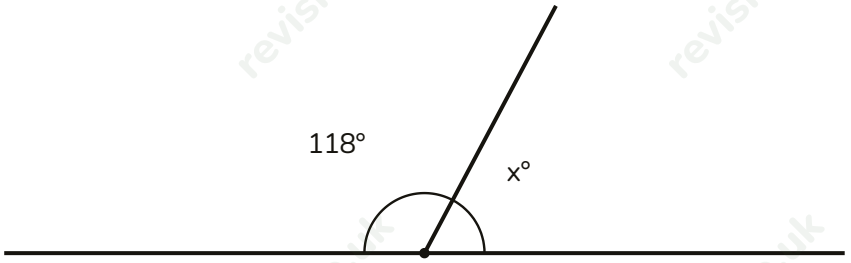
Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 A straight line is divided into two angles by a single ray. One angle is 118 degrees and the other is x degrees. Calculate the value of x.

Diagram NOT accurately drawn



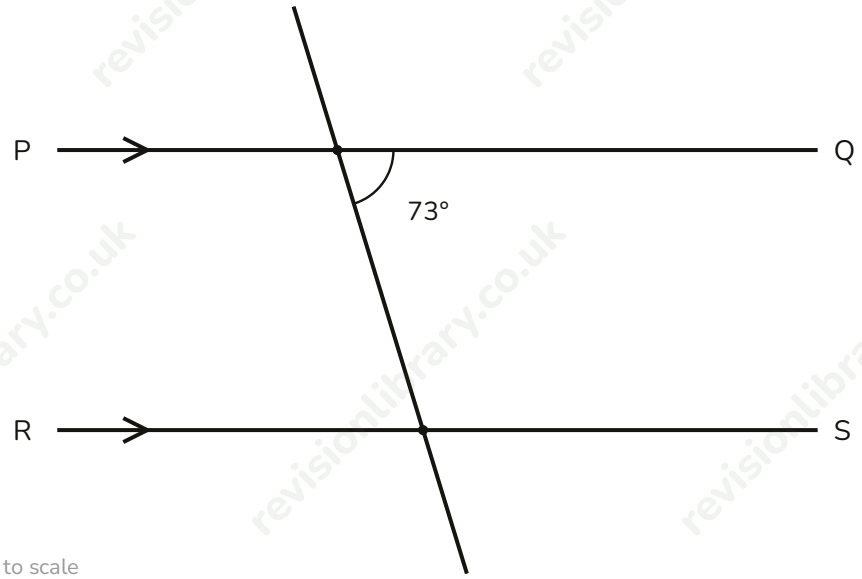
(not to scale)

(2)

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2 Two parallel lines PQ and RS are cut by a straight line. One of the angles formed, where the straight line crosses PQ, is 73 degrees.

Diagram NOT accurately drawn



Not to scale

(a) State the size of the angle vertically opposite the 73 degree angle, giving a reason. **(1)**

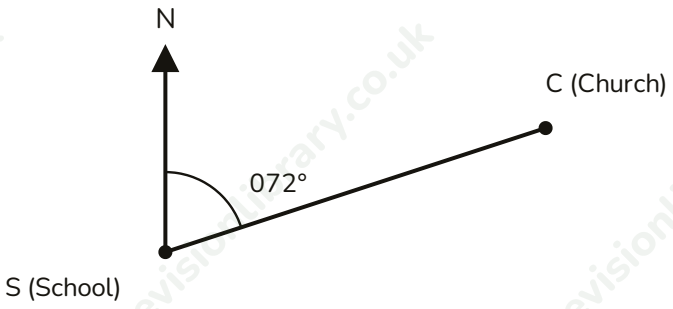
(b) Calculate the size of the angle next to the 73 degree angle on the same straight line, giving a reason. **(2)**

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3 The bearing of a church C from a school S is 072 degrees. Calculate the bearing of the school S from the church C (the back bearing).

Diagram NOT accurately drawn



Not to scale

(2)

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4 Complete the table by stating the number of lines of symmetry and the order of rotational symmetry for each shape.

(a) A square: state the number of lines of symmetry and the order of rotational symmetry. **(2)**

(b) An equilateral triangle: state the number of lines of symmetry and the order of rotational symmetry. **(2)**

(c) A regular pentagon: state the number of lines of symmetry and the order of rotational symmetry. **(2)**

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Mark scheme · 2.12 Angles and Shape: 10-minute Pack

A correct answer earns full marks unless the question asks for working, a method, proof or explanation.

Question 1

180 - 118 seen (angles on a straight line sum to 180 degrees) **M1**

62 degrees cao **A1**

Answer: x = 62 degrees

Question 2

(a) 73 degrees oe with reason 'vertically opposite angles are equal' **B1**

(a) Answer: 73 degrees (vertically opposite angles are equal)

(b) 180 - 73 seen **M1**

(b) 107 degrees cao with reason 'angles on a straight line sum to 180 degrees' **A1**

(b) Answer: 107 degrees (angles on a straight line sum to 180 degrees)

Question 3

72 + 180 seen **M1**

252 degrees cao **A1**

Answer: 252 degrees

Question 4

(a) 4 lines of symmetry cao **B1**

(a) order of rotational symmetry 4 cao **B1**

(a) Answer: 4 lines of symmetry, order 4 rotational symmetry

(b) 3 lines of symmetry cao **B1**

(b) order of rotational symmetry 3 cao **B1**

(b) Answer: 3 lines of symmetry, order 3 rotational symmetry

(c) 5 lines of symmetry cao **B1**

(c) order of rotational symmetry 5 cao **B1**

(c) Answer: 5 lines of symmetry, order 5 rotational symmetry

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