

Angle Problems

Mark Scheme

Level	GCSE
Subject	Maths
Exam Board	Edexcel GCSE
Topic	Angle Problems
Grade Level	Grade 4
Booklet	Mark Scheme

Time Allowed: 48 minutes

Score: /40

Percentage: /100

Grade Boundaries:

1.

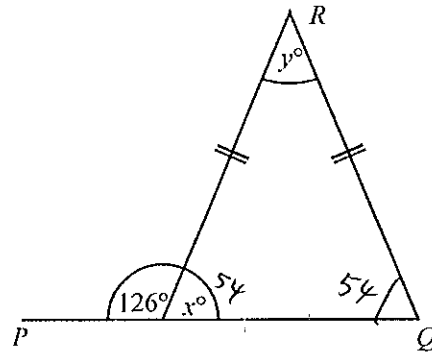


Diagram NOT accurately drawn

PQ is a straight line.

- (a) Work out the size of the angle marked x° .

.....54.....°

(1)

- (b) (i) Work out the size of the angle marked y° .

.....72.....°

- (ii) Give reasons for your answer.

.....angles at the base of an isosceles triangle
are equal.....

(3)

(4 marks)

2.

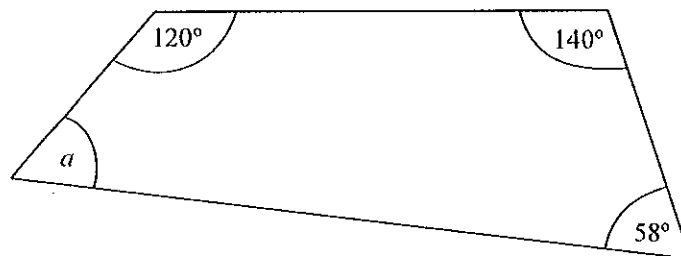


Diagram NOT accurately drawn

Work out the size of the angle a .

.....42.....°

(2 marks)

3.

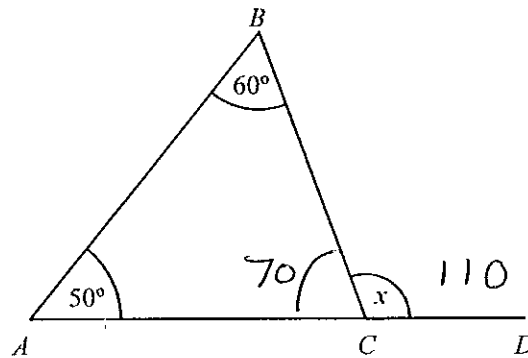


Diagram **NOT** accurately drawn

In the diagram, ABC is a triangle.

ACD is a straight line.

Angle $CAB = 50^\circ$.

Angle $ABC = 60^\circ$.

Work out the size of the angle marked x .

.....110.....°

(2 marks)

4.

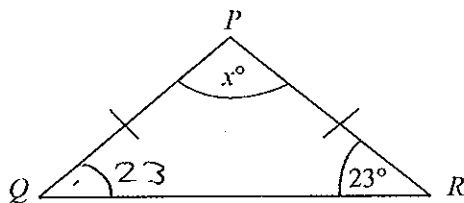


Diagram **NOT** accurately drawn

PQR is an isosceles triangle.

$PQ = PR$.

Angle $R = 23^\circ$.

Work out the value of x .

$x =$ 134.....

(2 marks)

5.

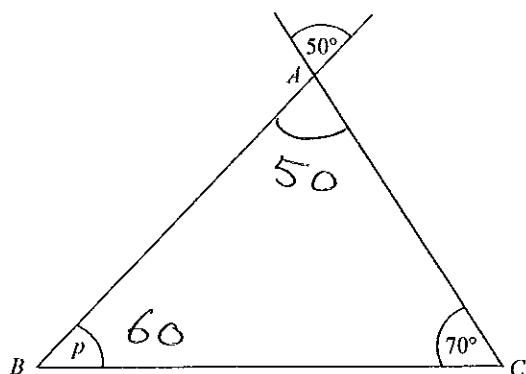


Diagram NOT accurately drawn

ABC is a triangle.

Work out the size of the angle marked p .

$p = \dots\dots 60 \dots\dots^\circ$ (2 marks)

6.

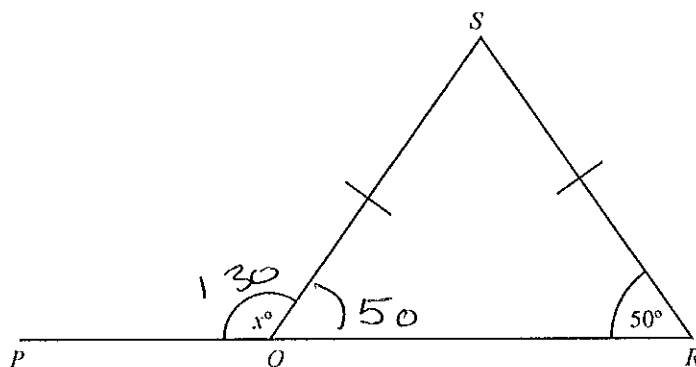


Diagram NOT accurately drawn

PQR is a straight line.
 $SQ = SR$.

(i) Work out the size of the angle marked x°

$\dots\dots 130 \dots\dots^\circ$

(ii) Give reasons for your answer.

$\dots\dots$ angles at the base of an isosceles triangle are equal $\dots\dots$ angles on a straight line add up to 180° (3 marks)

7.

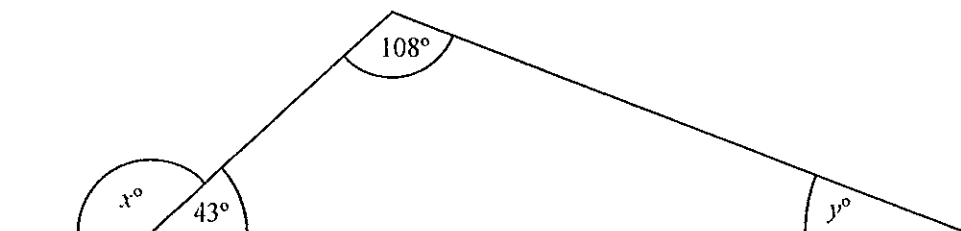


Diagram NOT accurately drawn

- (a) Work out the value of x .

$$x = \dots 137 \dots$$

(1)

- (b) Work out the value of y .

$$y = \dots 29 \dots$$

(2)

(3 marks)

8.

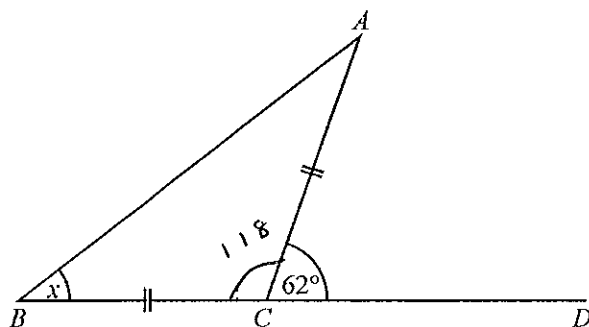


Diagram NOT accurately drawn

Triangle ABC is isosceles, with $AC = BC$.

Angle $ACD = 62^\circ$.

BCD is a straight line.

Work out the size of angle x .

$$x = \dots 31^\circ \dots$$

(2 marks)

9.

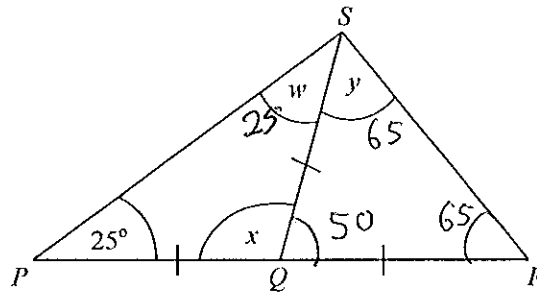


Diagram NOT accurately drawn

PQR is a straight line.

$PQ = QS = QR$.

Angle $SPQ = 25^\circ$.

(a) (i) Write down the size of angle w .

.....25.....°

(ii) Work out the size of angle x .

.....130.....°

(2)

(b) Work out the size of angle y .

.....65.....°

(2)

(4 marks)

10.

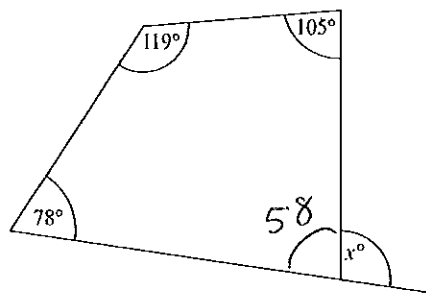


Diagram NOT accurately drawn

Work out the value of x .

$x =$ 122.....

(3 marks)

11.

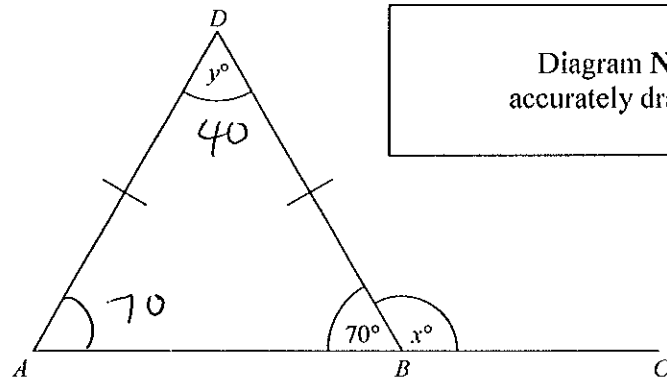


Diagram NOT
accurately drawn

ABD is a triangle. ABC is a straight line.
Angle $ABD = 70^\circ$.
 $AD = BD$.

- (a) (i) Work out the value of x .

$$x = \dots 110 \dots$$

- (ii) Give a reason for your answer.

angles on a straight line add to 180° (2)

- (b) (i) Work out the value of y .

$$y = \dots 40 \dots$$

- (ii) Give a reason for your answer.

angles at the base of an isosceles triangle are equal
angles in a triangle add up to 180° (3)

(5 marks)

12.

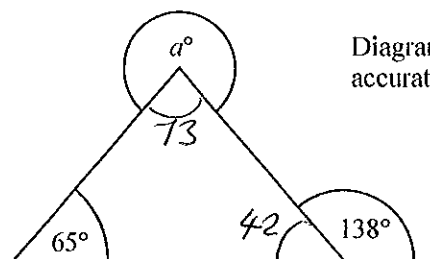


Diagram NOT
accurately drawn

Work out the value of a .

$$a = \dots 287 \dots$$

(3 marks)

13.

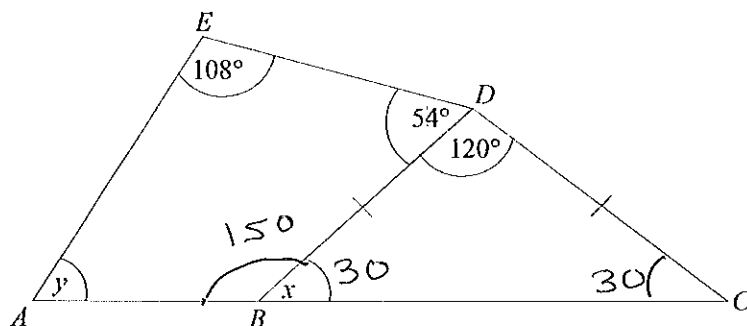


Diagram **NOT** accurately drawn

In the diagram, ABC is a straight line and $BD = CD$.

(a) Work out the size of angle x .

.....30°

(2)

(b) Work out the size of angle y .

.....48°

(3)

(5 marks)