

# Angle Problems

## Question Paper

|             |                |
|-------------|----------------|
| Level       | GCSE           |
| Subject     | Maths          |
| Exam Board  | Edexcel GCSE   |
| Topic       | Angle Problems |
| Grade Level | Grade 4        |
| Booklet     | Question Paper |

**Time Allowed:** 48 minutes

**Score:** /40

**Percentage:** /100

**Grade Boundaries:**

1.

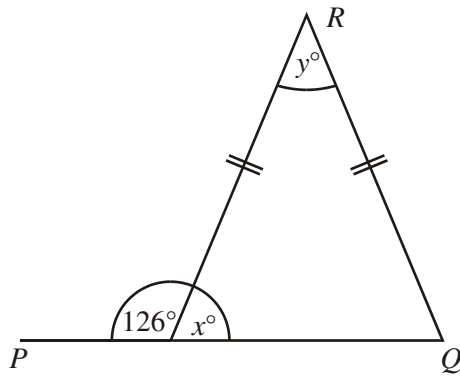


Diagram **NOT** accurately drawn

$PQ$  is a straight line.

(a) Work out the size of the angle marked  $x^\circ$ .

.....<sup>o</sup>

(1)

(b) (i) Work out the size of the angle marked  $y^\circ$ .

.....<sup>o</sup>

(ii) Give reasons for your answer.

.....

.....

(3)

**(4 marks)**

2.

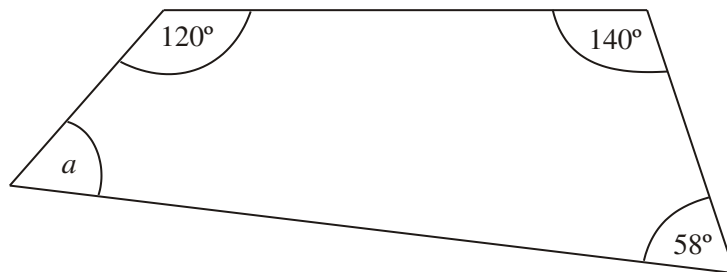


Diagram **NOT** accurately drawn

Work out the size of the angle  $a$ .

.....<sup>o</sup>

**(2 marks)**

3.

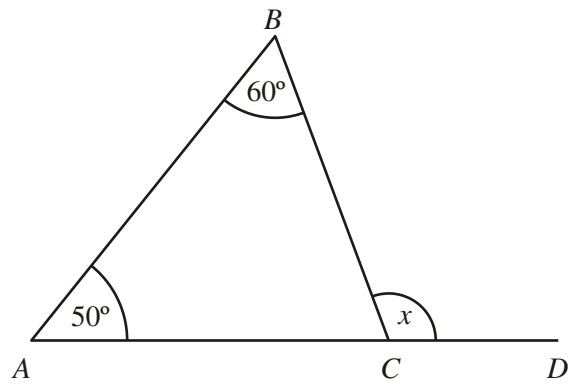


Diagram **NOT** accurately drawn

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  $x$ .

.....<sup>o</sup>

**(2 marks)**

4.

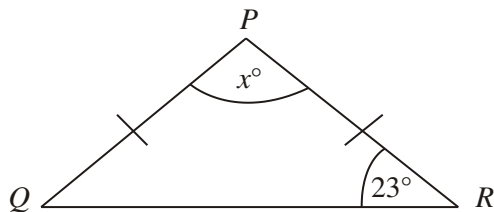


Diagram **NOT** accurately drawn

$PQR$  is an isosceles triangle.

$PQ = PR$ .

Angle  $R = 23^\circ$ .

Work out the value of  $x$ .

$x =$  .....

**(2 marks)**

5.

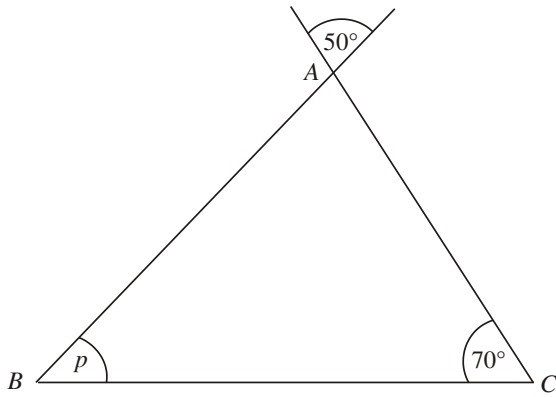


Diagram **NOT** accurately drawn

*ABC* is a triangle.

Work out the size of the angle marked *p*.

$p = \dots\dots\dots^\circ$

**(2 marks)**

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6.

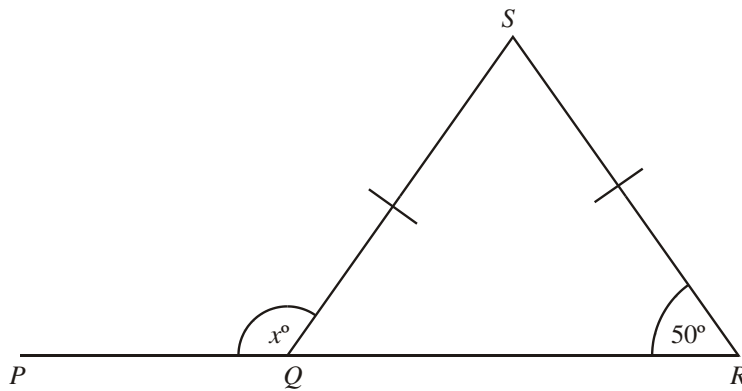


Diagram **NOT** accurately drawn

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

(i) Work out the size of the angle marked  $x^\circ$

$\dots\dots\dots^\circ$

(ii) Give reasons for your answer.

.....  
.....

**(3 marks)**

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7.

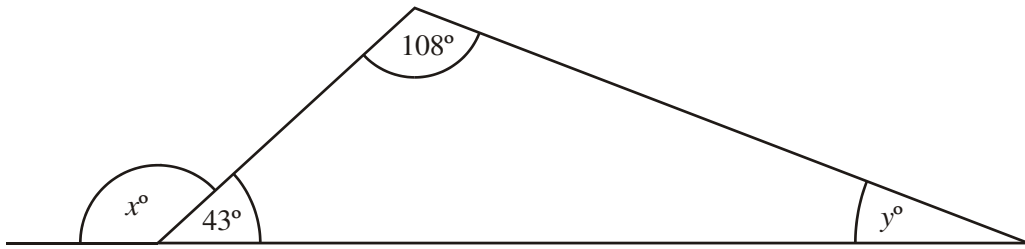


Diagram **NOT** accurately drawn

(a) Work out the value of  $x$ .

$$x = \dots\dots\dots$$

(1)

(b) Work out the value of  $y$ .

$$y = \dots\dots\dots$$

(2)

**(3 marks)**

8.

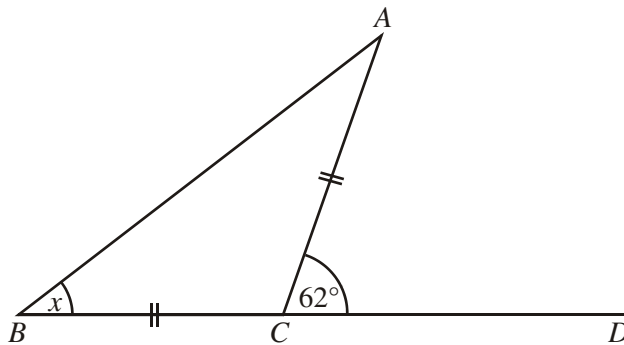


Diagram **NOT** accurately drawn

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

Angle  $ACD = 62^\circ$ .

$BCD$  is a straight line.

Work out the size of angle  $x$ .

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

**(2 marks)**

9.

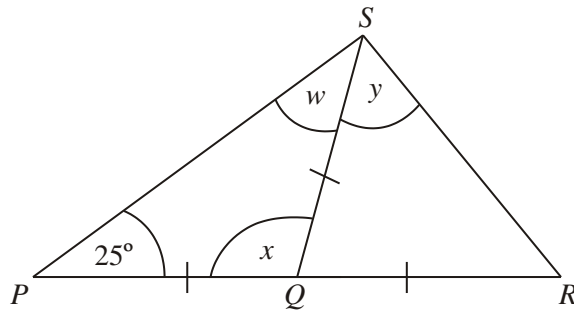


Diagram **NOT** accurately drawn

$PQR$  is a straight line.

$PQ = QS = QR$ .

Angle  $SPQ = 25^\circ$ .

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

.....<sup>o</sup>

(ii) Work out the size of angle  $x$ .

.....<sup>o</sup>

(2)

(b) Work out the size of angle  $y$ .

.....<sup>o</sup>

(2)

**(4 marks)**

10.

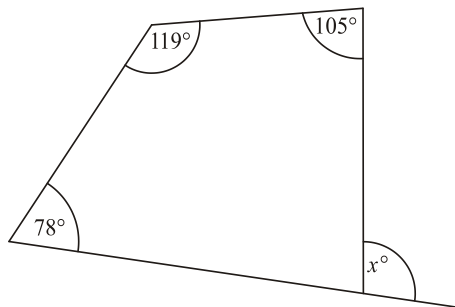


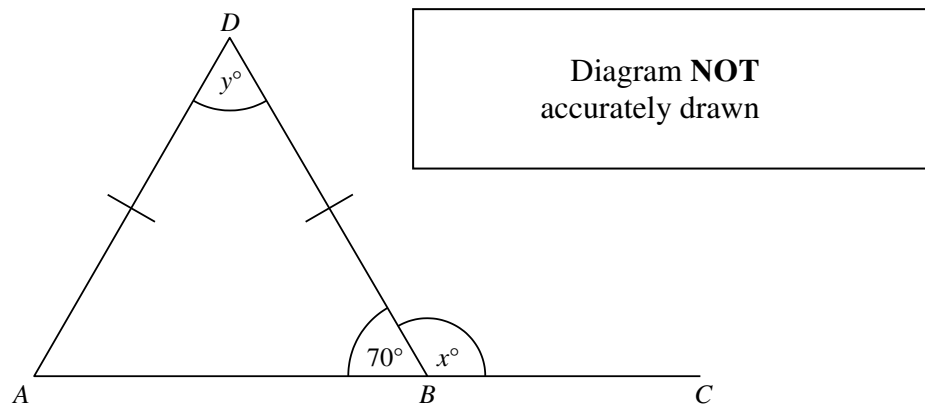
Diagram **NOT** accurately drawn

Work out the value of  $x$ .

$x = \dots\dots\dots$

**(3 marks)**

11.



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

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

$x = \dots\dots\dots$

(ii) Give a reason for your answer.

.....

(2)

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

$y = \dots\dots\dots$

(ii) Give a reason for your answer.

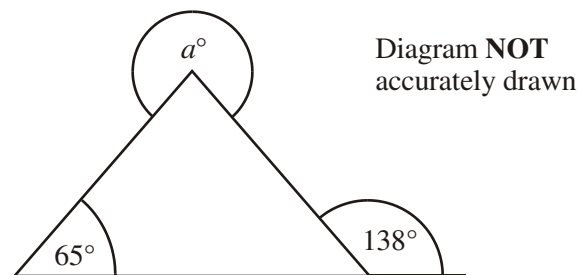
.....

.....

(3)

**(5 marks)**

12.



Work out the value of  $a$ .

$a = \dots\dots\dots$

**(3 marks)**

13.

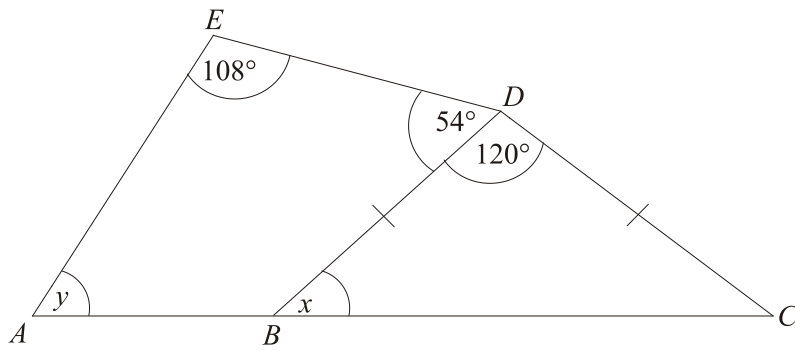


Diagram **NOT** accurately drawn

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

(a) Work out the size of angle  $x$ .

.....<sup>o</sup>

(2)

(b) Work out the size of angle  $y$ .

.....<sup>o</sup>

(3)

**(5 marks)**

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