

Name:.....

Total Marks:.....

# GCSE (9-1) Grade 4

# Angles



## Instructions

Use **black** ink or ball-point pen.

**Fill in the boxes** at the top of this page with your name.

Answer **all** questions.

Answer the questions in the spaces provided

– there may be more space than you need.

**Show all your working out**

## Information

The marks for **each** question are shown in brackets.

Use this as a guide as to how much time to spend on each question.

Questions labelled with an **asterisk** (\*) are ones where the quality of your written communication will be assessed

## Advice

Read each question carefully before you start to answer it

Attempt every question

Check your answers if you have time at the end

1.

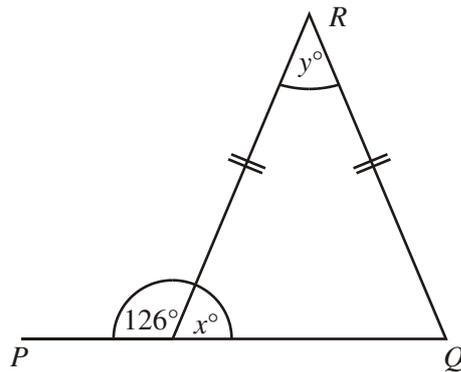


Diagram **NOT** accurately drawn

$PQ$  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.

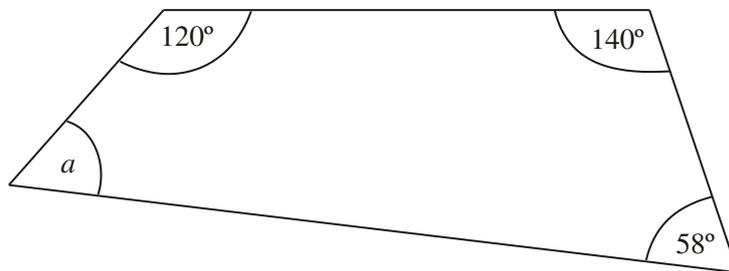


Diagram **NOT** accurately drawn

Work out the size of the angle  $a$ .

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

**(2 marks)**

3.

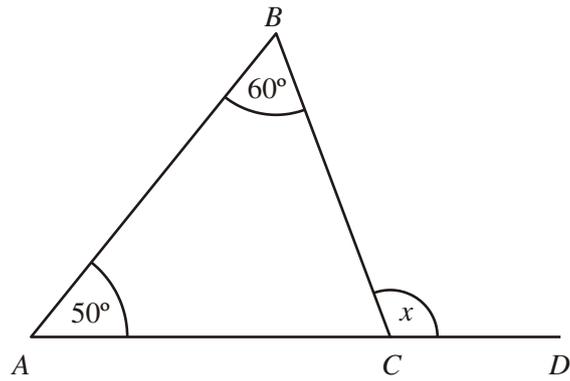


Diagram **NOT** accurately drawn

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.

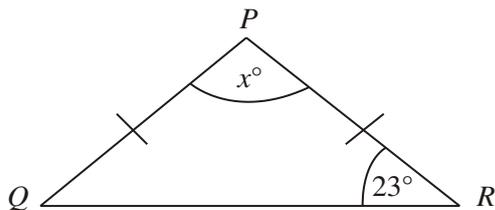


Diagram **NOT** accurately drawn

$PQR$  is an isosceles triangle.

$PQ = PR$ .

Angle  $R = 23^\circ$ .

Work out the value of  $x$ .

$x =$  .....

**(2 marks)**

5.

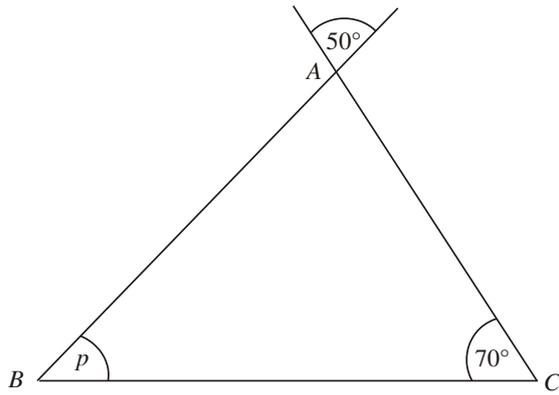


Diagram **NOT** accurately drawn

*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.

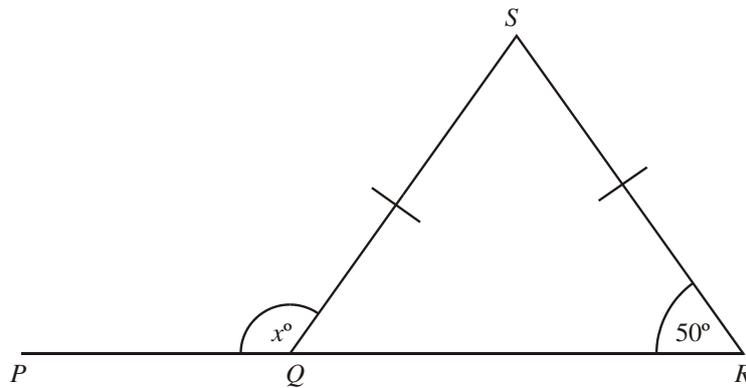


Diagram **NOT** accurately drawn

*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.

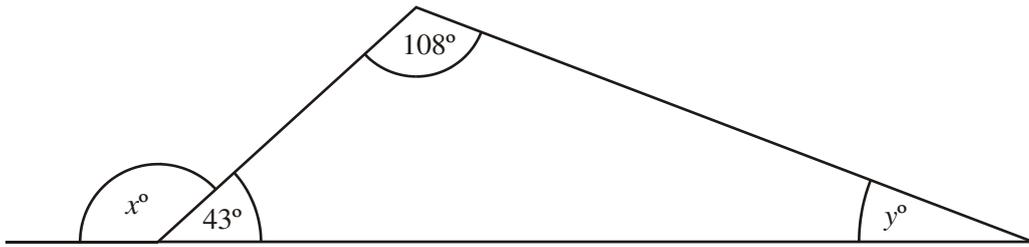


Diagram **NOT** accurately drawn

(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.

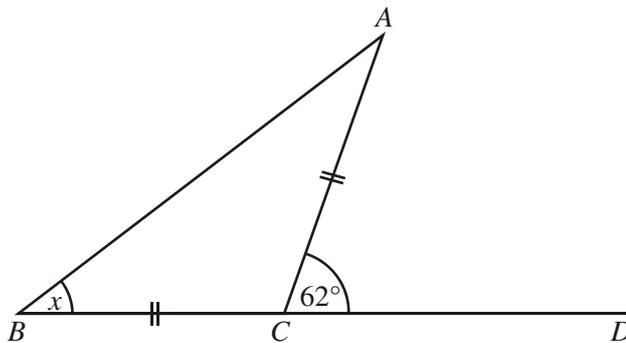


Diagram **NOT** accurately drawn

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.

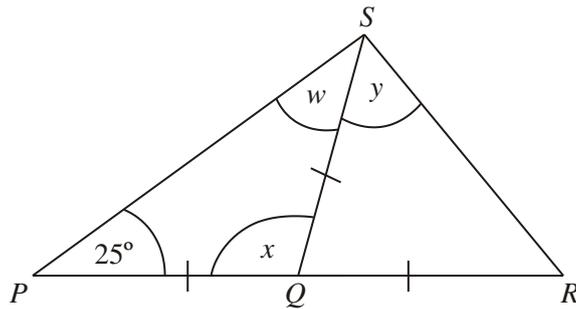


Diagram **NOT** accurately drawn

$PQR$  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.

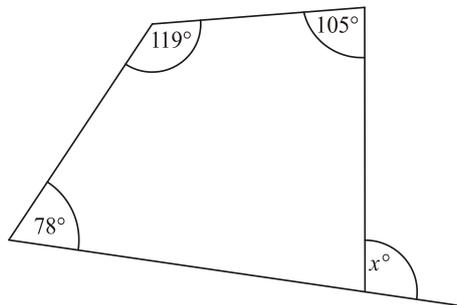


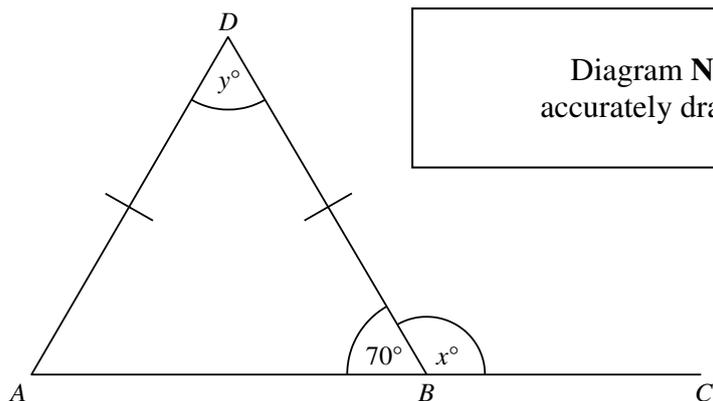
Diagram **NOT** accurately drawn

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.

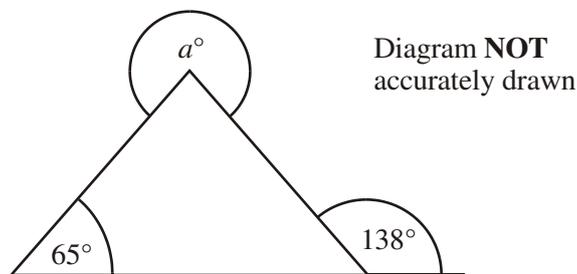
.....

.....

(3)

**(5 marks)**

12.



Work out the value of  $a$ .

$a = \dots\dots\dots$

**(3 marks)**

13.

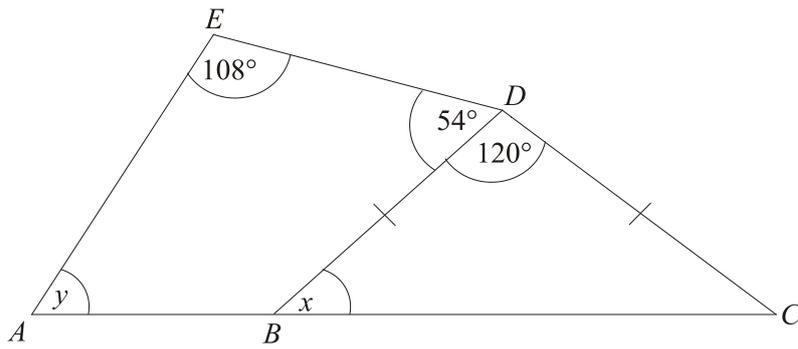


Diagram **NOT** accurately drawn

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

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

.....°

(2)

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

.....°

(3)

**(5 marks)**