

Angle Facts

For Pearson Edexcel GCSE Mathematics (1MA1) • Foundation tier

Name _____

Total marks: **29**

Answer **all** questions in the spaces provided. Show your working: marks are given for correct method.

1 Here is an angle.

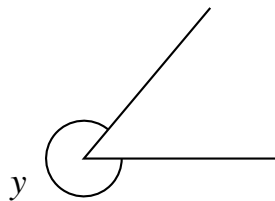


Diagram **NOT** accurately drawn

What type of angle is angle y ?

Choose from acute, right angle, obtuse and reflex.

.....
(1)

(Total for Question 1 is 1 mark)

2 Here is a triangle.

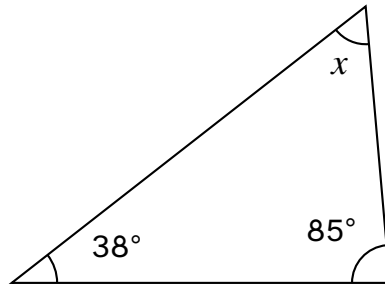


Diagram **NOT** accurately drawn

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

.....^o
(1)

(b) Give a reason for your answer.

(1)

(Total for Question 2 is 2 marks)

- 3 The diagram shows three angles on a straight line.

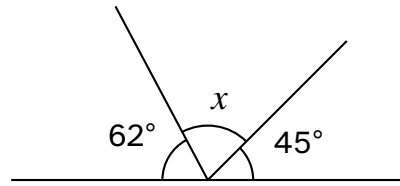


Diagram **NOT** accurately drawn

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

.....°
(2)

- (b) Give a reason for your answer.

.....
(1)

(Total for Question 3 is 3 marks)

- 4 Three angles meet at a point.

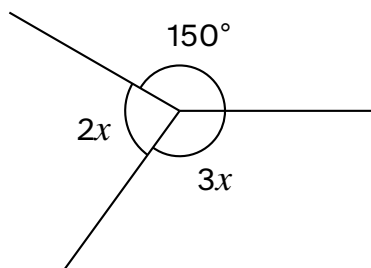


Diagram **NOT** accurately drawn

Work out the value of x .

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

(3)

(Total for Question 4 is 3 marks)

- 5 PR and QS are straight lines that cross at T .

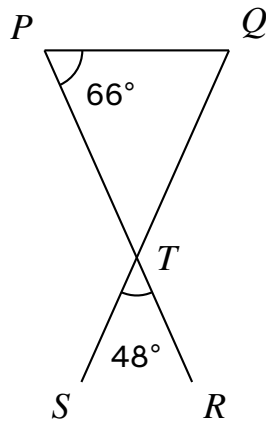


Diagram **NOT** accurately drawn

Show that triangle PQT is isosceles.
Give a reason for each stage of your working.

(4)

(Total for Question 5 is 4 marks)

- 6 $ABCD$ is a quadrilateral.
 $AB = AD$

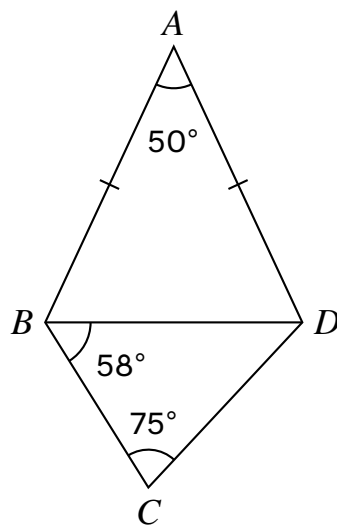


Diagram **NOT** accurately drawn

Work out the size of angle ADC .
Give a reason for each stage of your working.

.....[°]
(4)

(Total for Question 6 is 4 marks)

- 7 Two straight lines cross.

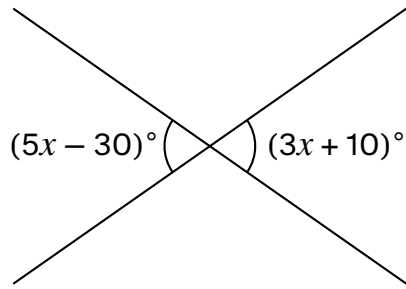


Diagram **NOT** accurately drawn

Work out the value of x .

$x = \dots\dots\dots$
(3)

(Total for Question 7 is 3 marks)

- 8 The sizes of the angles in a triangle are in the ratio 2 : 3 : 4
Work out the size of the largest angle.

$\dots\dots\dots^\circ$
(2)

(Total for Question 8 is 2 marks)

- 9 Here is an isosceles triangle.
 $AB = BC$

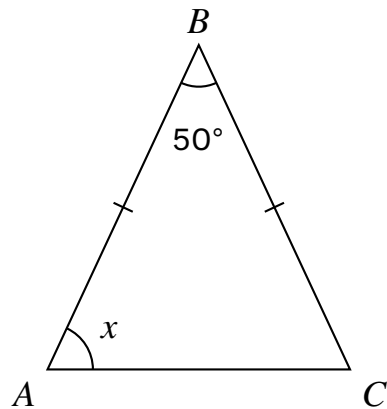


Diagram **NOT** accurately drawn

Oskar works out the size of angle x .

He writes

$$x = 180 - 50 \div 2 = 155^\circ$$

- (a) Explain the mistake Oskar has made.

(1)

- (b) Work out the size of angle x .

.....°
(2)

(Total for Question 9 is 3 marks)

- 10** In triangle PQR
angle Q is 20° more than angle P
angle R is twice the size of angle Q .
Work out the size of each angle in triangle PQR .
You must show your working.

angle $P = \dots\dots\dots^\circ$, angle $Q = \dots\dots\dots^\circ$, angle $R = \dots\dots\dots^\circ$
(4)

(Total for Question 10 is 4 marks)
