

# Measuring and Drawing Lines and Angles

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

Name \_\_\_\_\_

Total marks: **21**

Answer **all** questions in the spaces provided. Show your working: marks are given for correct method. Diagrams in this worksheet are accurately drawn. Print at 100% (actual size). You will need a ruler, a protractor and a pair of compasses.

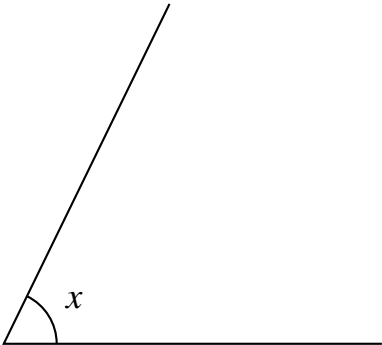
**1** Measure the length of this line.



..... cm  
(1)

**(Total for Question 1 is 1 mark)**

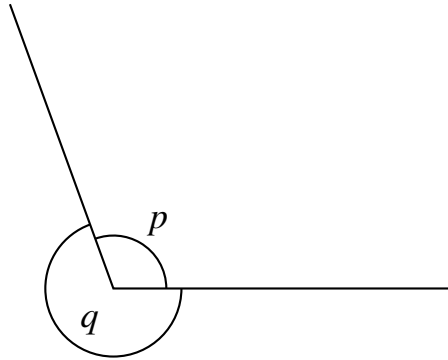
**2** Measure the size of the angle marked  $x$ .



..... °  
(1)

**(Total for Question 2 is 1 mark)**

- 3** Here are two angles,  $p$  and  $q$ , at a point.



- (a) Measure the size of angle  $p$ .

.....<sup>°</sup>  
(1)

- (b) Use your answer to part (a) to work out the size of angle  $q$ .

.....<sup>°</sup>  
(1)

**(Total for Question 3 is 2 marks)**

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- 4** Here is a list of angles.

35°    90°    105°    178°    182°    270°

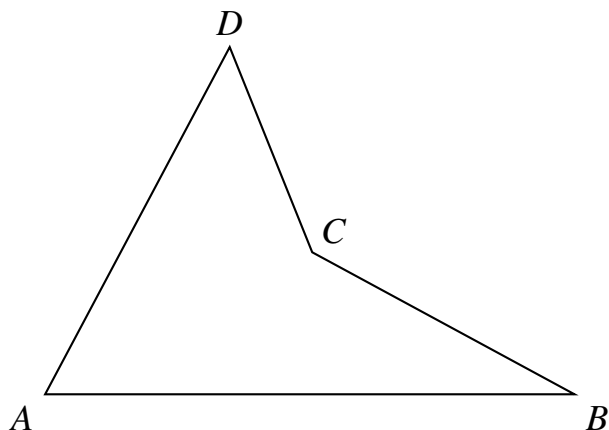
Write down all the angles in the list that are obtuse.

.....  
(1)

**(Total for Question 4 is 1 mark)**

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- 5 Here is an accurately drawn quadrilateral  $ABCD$ .



- (a) Measure the distance from  $A$  to  $C$ .  
Give your answer in millimetres.

..... mm  
(1)

- (b) Measure the size of angle  $BAD$ .

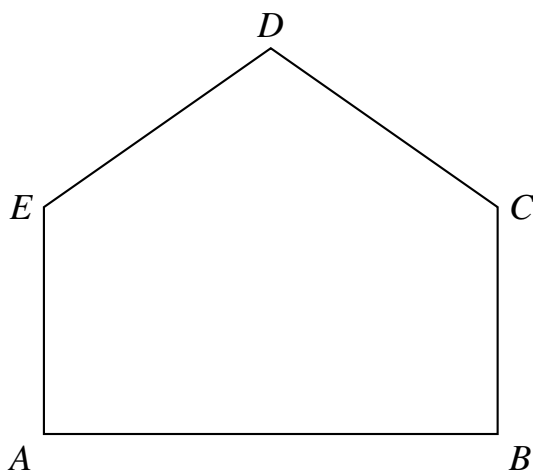
..... °  
(1)

- (c) Angle  $BCD$ , inside the quadrilateral, is a reflex angle.  
Measure the size of angle  $BCD$ .

..... °  
(1)

**(Total for Question 5 is 3 marks)**

- 6 Here is a pentagon  $ABCDE$ .  
The pentagon is accurately drawn.



- (a) Measure the length of the side  $CD$ .

..... cm  
(1)

- (b) Measure the size of angle  $CDE$ .

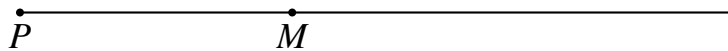
..... °  
(1)

- (c) By measuring, work out the perimeter of the pentagon  $ABCDE$ .

..... cm  
(2)

**(Total for Question 6 is 4 marks)**

- 7** The points  $P$  and  $M$  are on the line below.  
 $M$  is the midpoint of the line  $PQ$ .  
Mark with a cross ( $\times$ ) the position of  $Q$  on the line.

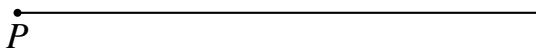


(1)

(Total for Question 7 is 1 mark)

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- 8** Draw an angle of  $48^\circ$  at the point  $P$ .  
Use the line as one arm of the angle.



(1)

(Total for Question 8 is 1 mark)

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- 9 In the space below, make an accurate drawing of triangle  $XYZ$ .  
 $XY = 7\text{ cm}$ ,  $XZ = 5\text{ cm}$ , angle  $YXZ = 70^\circ$   
The side  $XY$  has been drawn for you.

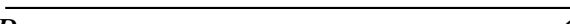
$X$    $Y$

(2)

(Total for Question 9 is 2 marks)

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- 10 Make an accurate drawing of triangle  $PQR$ , where  
 $PQ = 7.5\text{ cm}$ ,  $PR = 4\text{ cm}$ ,  $QR = 5.5\text{ cm}$   
Use a ruler and a pair of compasses. The side  $PQ$  has been drawn for you.

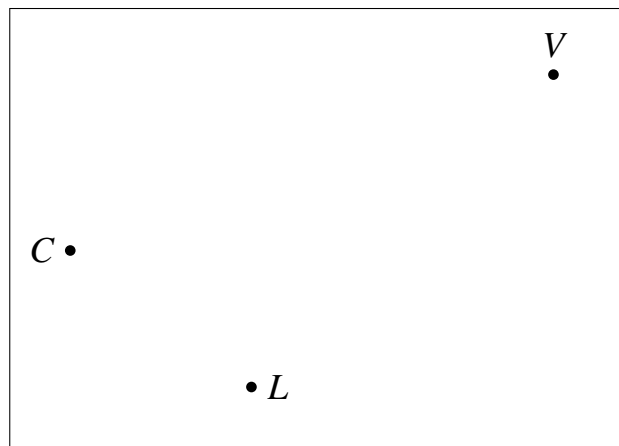
$P$    $Q$

(2)

(Total for Question 10 is 2 marks)

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- 11** The accurately drawn map shows the positions of a campsite,  $C$ , a lake,  $L$ , and a viewpoint,  $V$ .



Scale: 1 cm represents 0.5 km

- (a) Work out the real distance from the campsite to the lake.  
Give your answer in kilometres.

..... km  
(1)

- (b) Priti says,  
‘The viewpoint is more than twice as far from the campsite as the lake is.’  
Is Priti correct?  
You must show how you get your answer.

(2)

**(Total for Question 11 is 3 marks)**