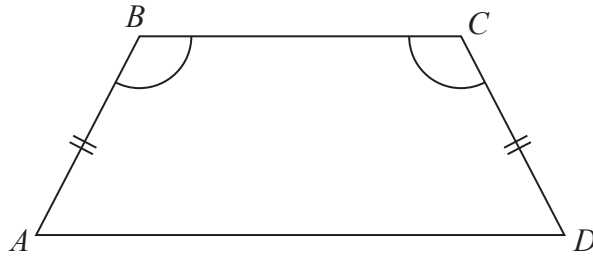


1 $ABCD$ is a quadrilateral.



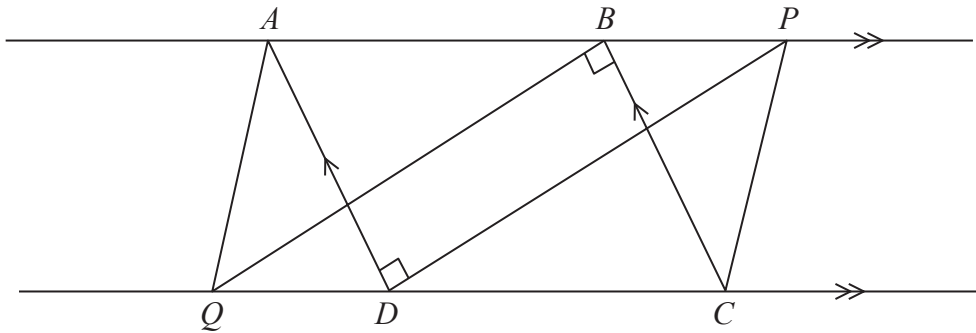
$$AB = CD.$$

$$\text{Angle } ABC = \text{angle } BCD.$$

Prove that $AC = BD$.

(Total for Question 1 is 4 marks)

2



$ABCD$ is a parallelogram.

ABP and QDC are straight lines.

Angle $ADP = \text{angle } CBQ = 90^\circ$

(a) Prove that triangle ADP is congruent to triangle CBQ .

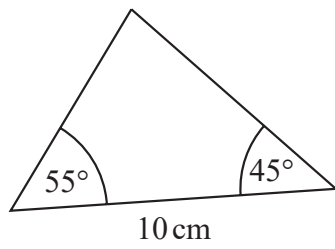
(3)

(b) Explain why AQ is parallel to PC .

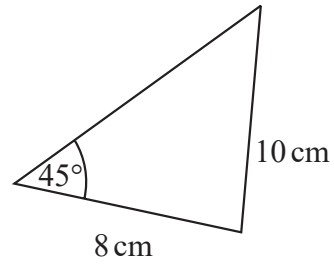
(2)

(Total for Question 2 is 5 marks)

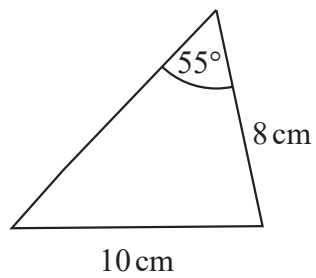
3 The diagram shows four triangles.



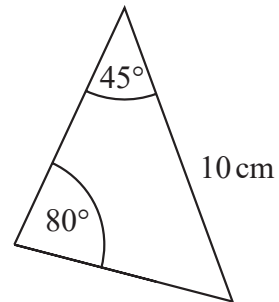
Triangle A



Triangle B



Triangle C



Triangle D

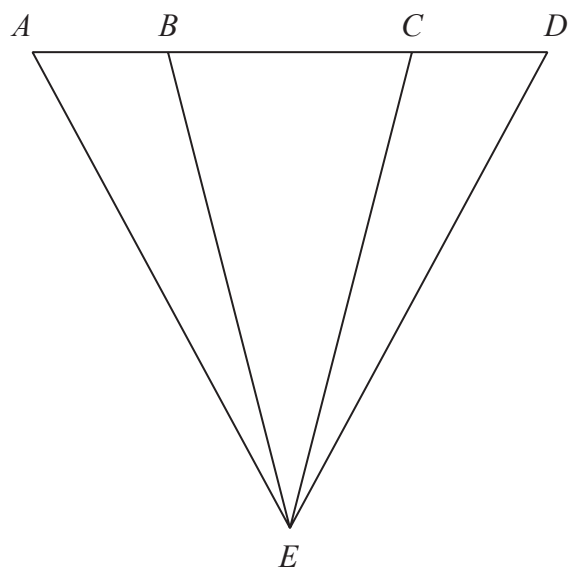
Two of these triangles are congruent.

Write down the letters of these two triangles.

..... and

(Total for Question 3 is 1 mark)

- 4 The diagram shows a triangle ADE .



$$AE = DE$$

$$AB : BC : CD = 1 : 2 : 1$$

Prove that triangle ACE is congruent to triangle DBE .

(Total for Question 4 is 3 marks)