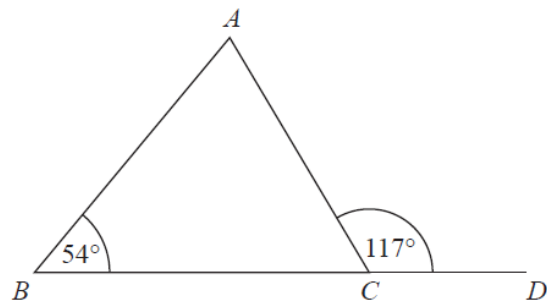


1



$BCD$  is a straight line.

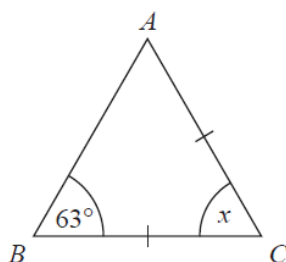
$ABC$  is a triangle.

Show that triangle  $ABC$  is an isosceles triangle.

Give a reason for each stage of your working.

(Total for Question is 4 marks)

- 2 Mary needs to work out the size of angle  $x$  in this diagram.



She writes

$$x = 63^\circ \text{ because base angles of an isosceles triangle are equal.}$$

Mary is wrong.

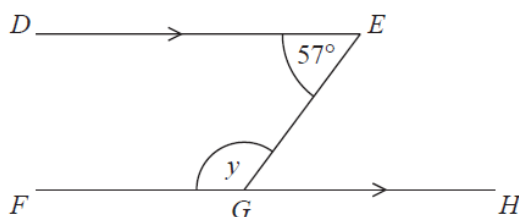
- (a) Explain why.

.....

.....

(1)

William needs to work out the size of angle  $y$  in this diagram.



William writes

Working	Reason
angle $EGH = 57^\circ$	because corresponding angles are equal
$y = 180^\circ - 57^\circ$ $y = 123^\circ$	because angles on a straight line add up to $180^\circ$

One of William's reasons is wrong.

- (b) Write down the correct reason.

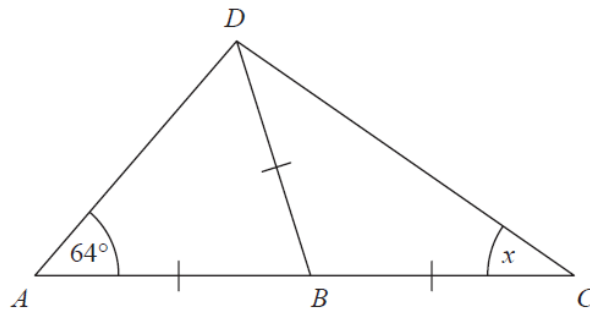
.....

.....

(1)

(Total for Question is 2 marks)

3



$ABC$  is a straight line.

$AB = BC = BD$ .

Angle  $DAB = 64^\circ$

Work out the size of the angle marked  $x$ .

Give a reason for each stage of your working.

(Total for Question is 4 marks)