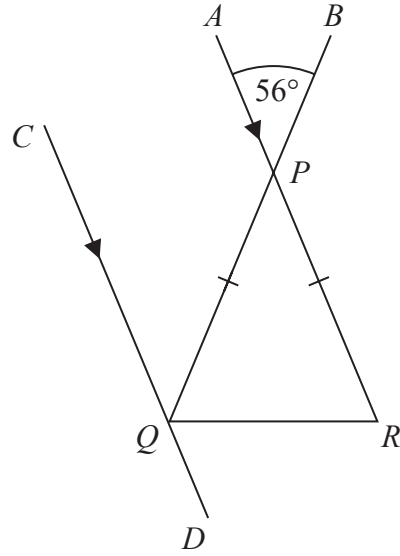


# Angles in Parallel Lines

June 2022 Paper 3

20 In the diagram,  $PQR$  is an isosceles triangle with  $PQ = PR$ .



$APR$  and  $CQD$  are parallel lines.  
 $BPQ$  is a straight line.

Angle  $APB = 56^\circ$

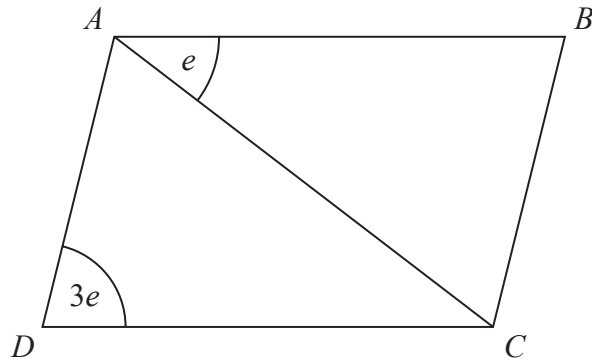
Work out the size of angle  $CQR$ .  
Give a reason for each stage of your working.

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(Total for Question 20 is 5 marks)

November 2024 Paper 1

21  $ABCD$  is a parallelogram.



All angles are measured in degrees.

Find an expression, in terms of  $e$ , for the size of angle  $CAD$ .  
Give a reason for each stage of your working.

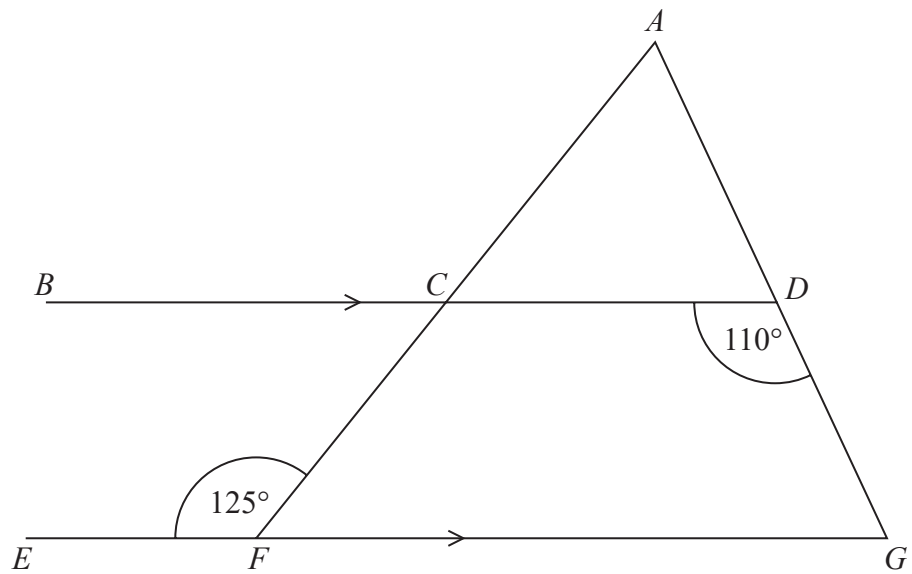
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(Total for Question 21 is 3 marks)

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June 2023 Paper 3

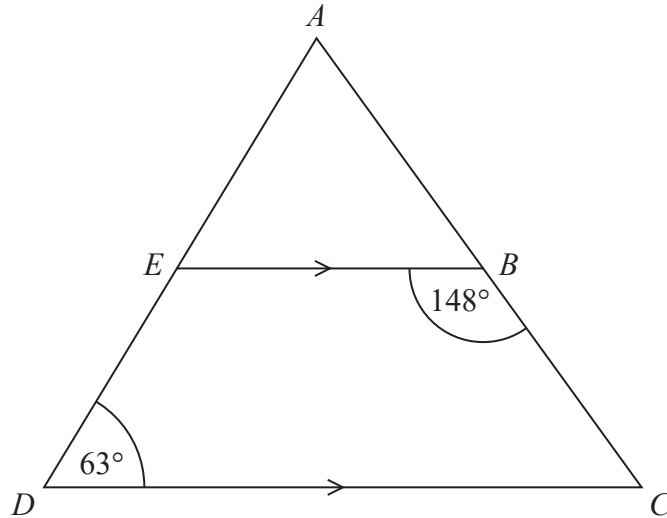
- 22  $ACF$  and  $ADG$  are straight lines.  
 $BCD$  and  $EFG$  are parallel lines.



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

June 2020 Paper 1

25  $ADC$  is a triangle.



$AED$  and  $ABC$  are straight lines.

$EB$  is parallel to  $DC$ .

Angle  $EBC = 148^\circ$

Angle  $ADC = 63^\circ$

Work out the size of angle  $EAB$ .

You must give a reason for each stage of your working.