Calculations and Answer

1 Make f the subject of the formula $d = \dfrac{3(1-f)}{f-4}$

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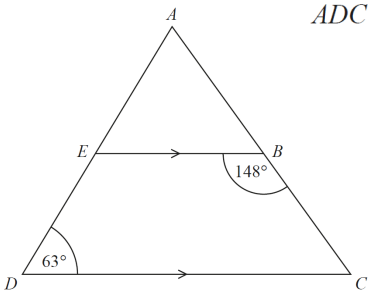
(6)

2



ADC is a triangle. AED and ABC are straight lines. EB is parallel to DC.

Angle $EBC = 148°$
Angle $ADC = 63°$

Work out the size of angle EAB.
You must give a reason for each stage of your working.

Green Pen Corrections and Notes

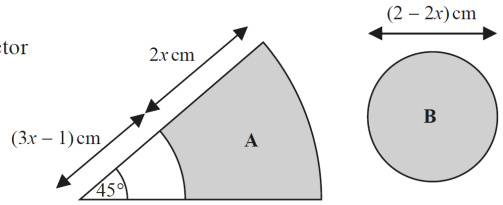
Calculations and Answer

(5)

3 The diagram shows two shaded shapes, **A** and **B**.

Shape **A** is formed by removing a sector of a circle with radius $(3x - 1)$ cm from a sector of the circle with radius $(5x - 1)$ cm.
Shape **B** is a circle of diameter $(2 - 2x)$ cm.
The area of shape **A** is equal to the area of shape **B**.

Find the value of x.
You must show all your working.



Calculations and Answer

Green Pen Corrections and Notes

(5)