

11

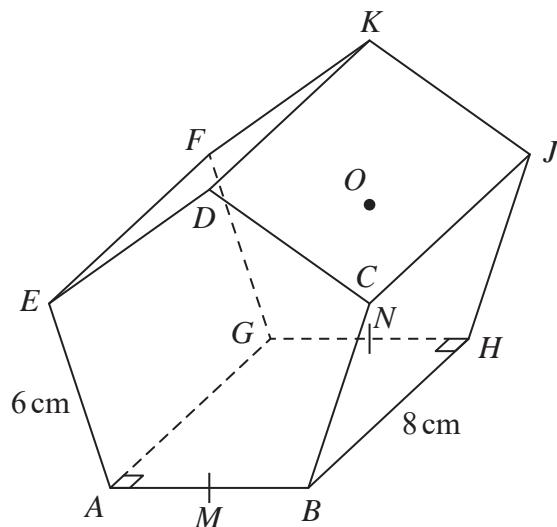


Diagram NOT
accurately drawn

Figure 5

Figure 5 shows a right prism $ABCDEF GHJK$.

A cross section of the prism is a regular pentagon with sides of length 6 cm.

$BH = 8 \text{ cm}$.

M is the midpoint of AB .

N is the midpoint of GH .

O is the centre of pentagon $FGHIJ$.

(a) Find, in cm to 3 significant figures, the length of AO . (5)

(b) Calculate the size, in degrees to 1 decimal place, of the angle between MK and MN . (5)



Question 11 continued

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P 5 9 0 1 5 A 0 2 7 3 2

Question 11 continued

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(Total for Question 11 is 10 marks)

