

3

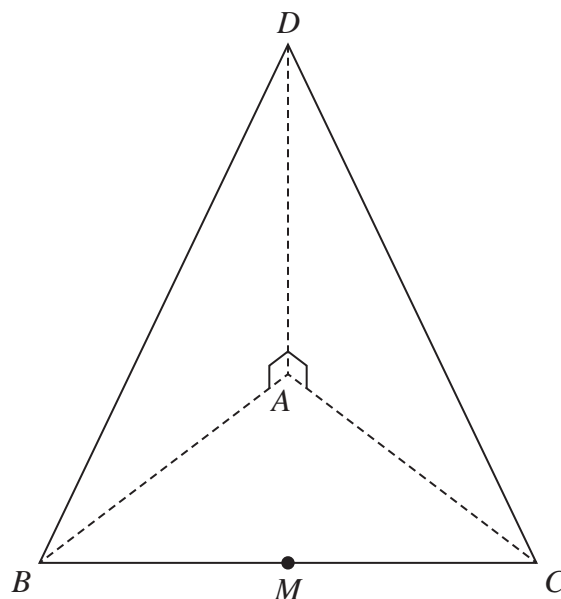
Diagram **NOT**  
accurately drawn**Figure 1**

Figure 1 shows a triangular pyramid  $ABCD$ .

The base,  $ABC$ , of the pyramid is a horizontal isosceles triangle with  $AB = AC = 10\text{ cm}$  and  $BC = 16\text{ cm}$ . The midpoint of  $BC$  is  $M$ .

The face  $BCD$  of the pyramid is an isosceles triangle with  $BD = CD = 26\text{ cm}$  and  $D$  is vertically above  $A$ .

$$\angle BAD = \angle CAD = 90^\circ$$

(a) Calculate the length, in cm, of  $AM$ .

(2)

Calculate, in degrees to the nearest degree,

(b) the size of  $\angle BCD$ ,

(3)

(c) the size of the angle between the planes  $BCA$  and  $BCD$ .

(4)

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**Question 3 continued**

Area for writing answers to Question 3 continued.



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**Question 3 continued**

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**Question 3 continued**

Handwriting practice area with horizontal dotted lines.

**(Total for Question 3 is 9 marks)**

