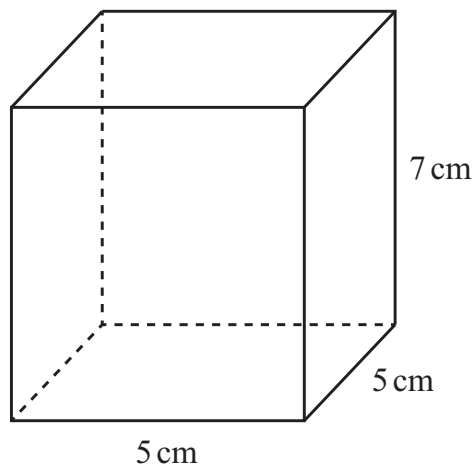


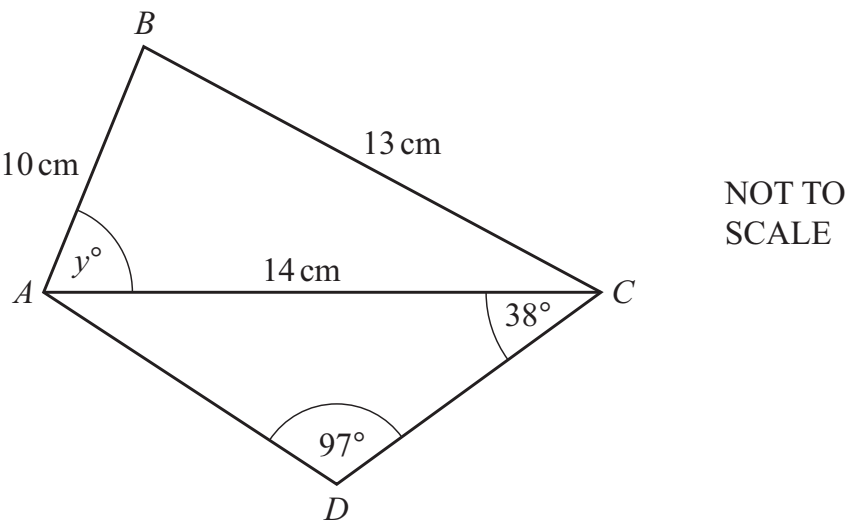
19

NOT TO
SCALE

The diagram shows a box in the shape of a cuboid.
Mala has a straight rod of length 10 cm.

Show that this rod does **not** fit completely inside the box.

[3]

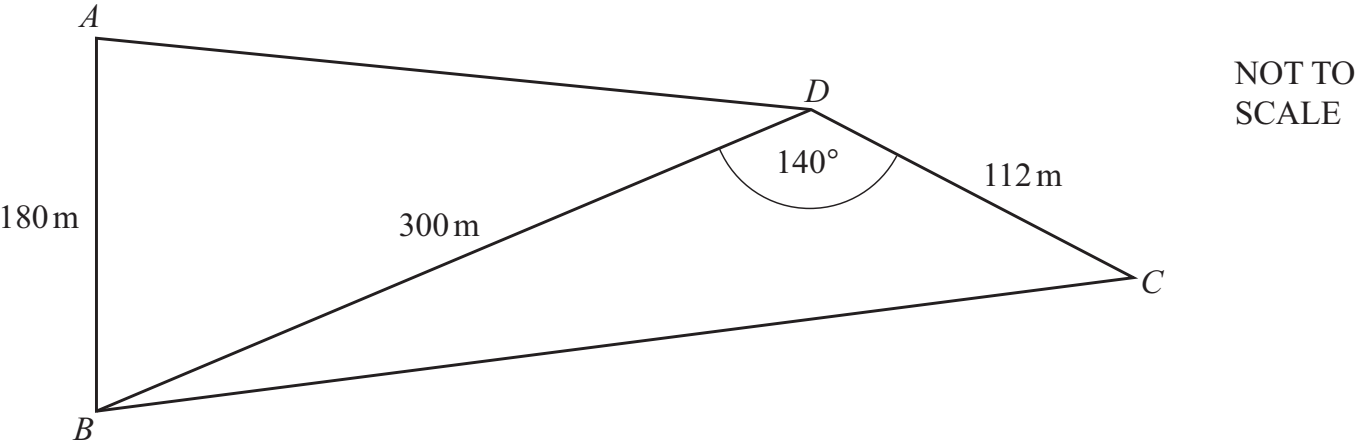


(a) Calculate the value of y .

$y = \dots\dots\dots$ [3]

(b) Calculate BD .

15



The diagram shows a field, $ABCD$, in the shape of a quadrilateral.
 BD is a straight path across the field.

(a) Calculate BC .

$BC = \dots\dots\dots \text{ m}$ [3]

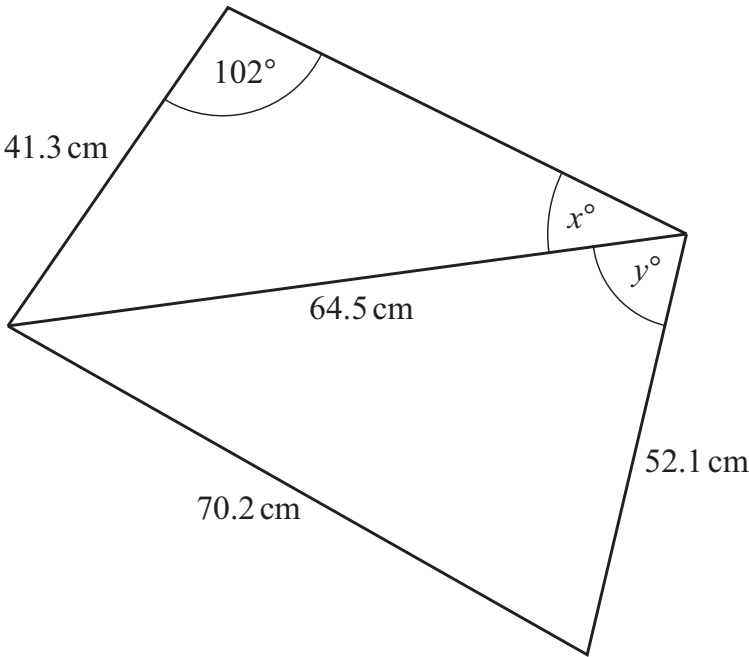
(b) Calculate angle DBC .

Angle $DBC = \dots\dots\dots$ [3]

(c) The total area of the field, $ABCD$, is $35\,900\text{ m}^2$.

Work out the length of the shortest distance from D to AB .

18



NOT TO
SCALE

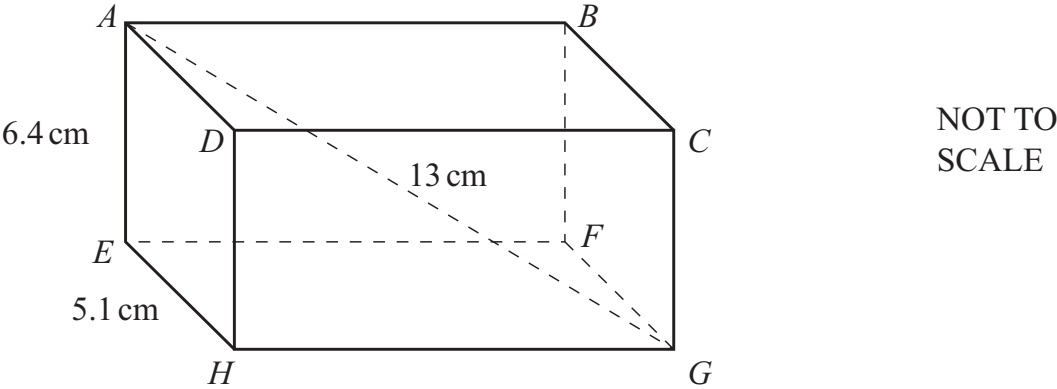
(a) Calculate the value of x .

$x = \dots\dots\dots$ [3]

(b) Calculate the value of y .

$y = \dots\dots\dots$ [3]

24



The diagram shows a cuboid $ABCDEFGH$.
 $AE = 6.4\text{ cm}$, $EH = 5.1\text{ cm}$ and $AG = 13\text{ cm}$.

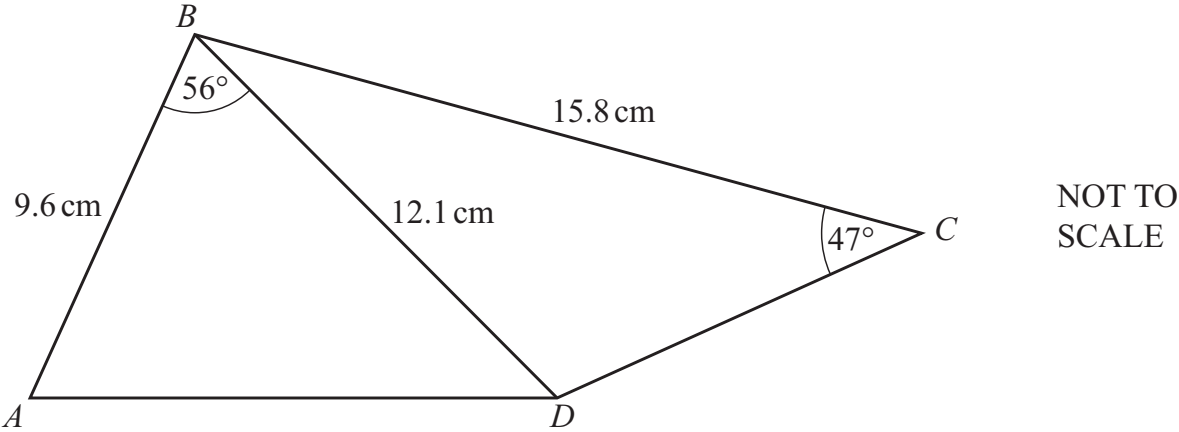
(a) Calculate EF .

$EF = \dots\dots\dots\text{ cm}$ [3]

(b) Calculate the angle between the line AG and the base $EFGH$ of the cuboid.

$\dots\dots\dots$ [3]

17



The diagram shows a quadrilateral $ABCD$.

(a) Calculate AD .

$AD = \dots\dots\dots\text{ cm}$ [3]

(b) Calculate the obtuse angle BDC .

Angle $BDC = \dots\dots\dots$ [4]

(c) Calculate the area of the quadrilateral.

$\dots\dots\dots\text{ cm}^2$ [3]