Question 1   **(Suggested maximum time: 5 minutes)**
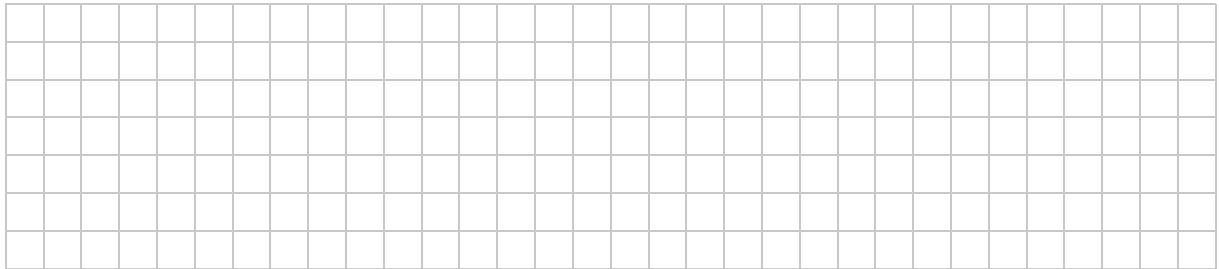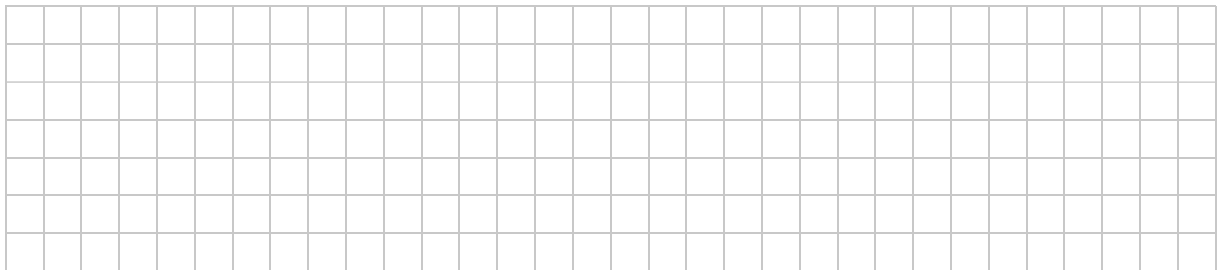
Sofia is estimating the volume of a shed.

(a)   She thinks that the base of the shed is roughly a rectangle with a length of 40 m and a
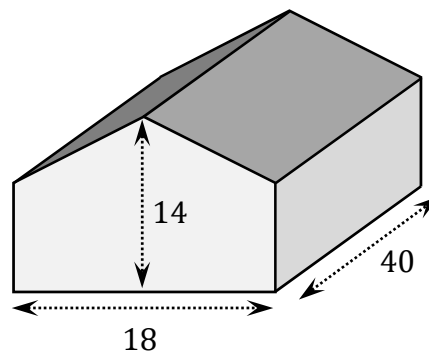width of 18 m. Work out the **area** of this rectangle.

(b)   Sofia thinks that the shed is roughly in the shape of a rectangular box with a length of 40 m,
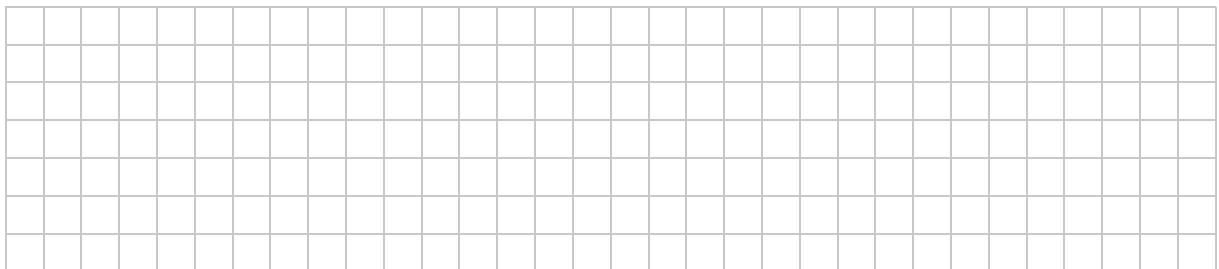a width of 18 m, and a height of 14 m.

Work out the **volume** of this box.

The diagram below shows the actual shed that Sofia is interested in.
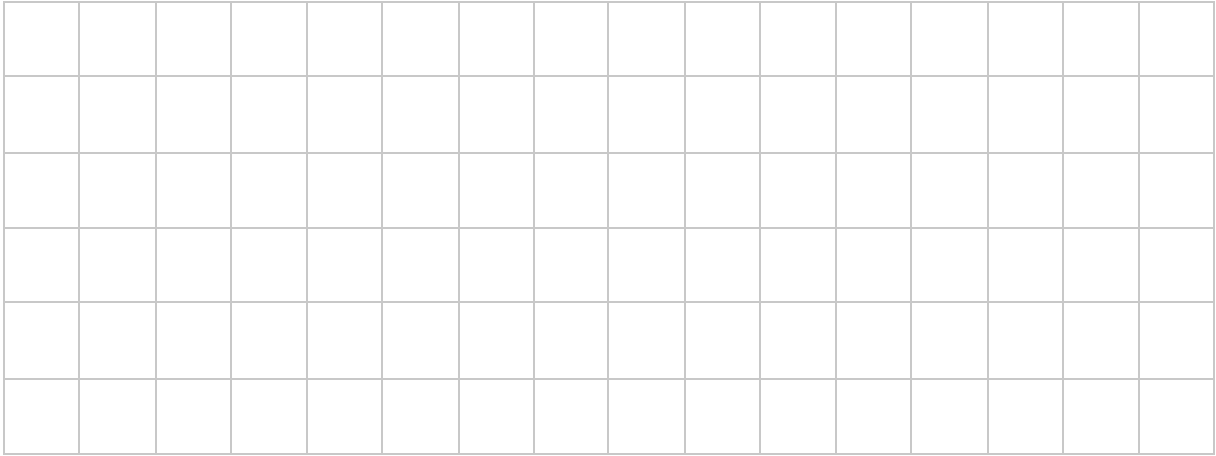All of the measurements are in metres.

(c)   Based on the diagram, what do you need to do to your answer to part **(b)** to get a more
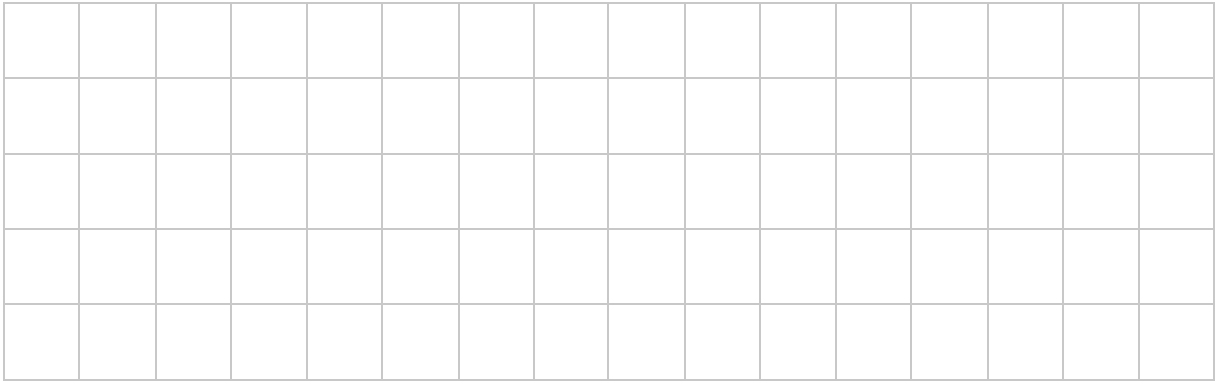accurate estimate of the volume of the shed?

running

Question 4 (Suggested maximum time: 5 minutes)
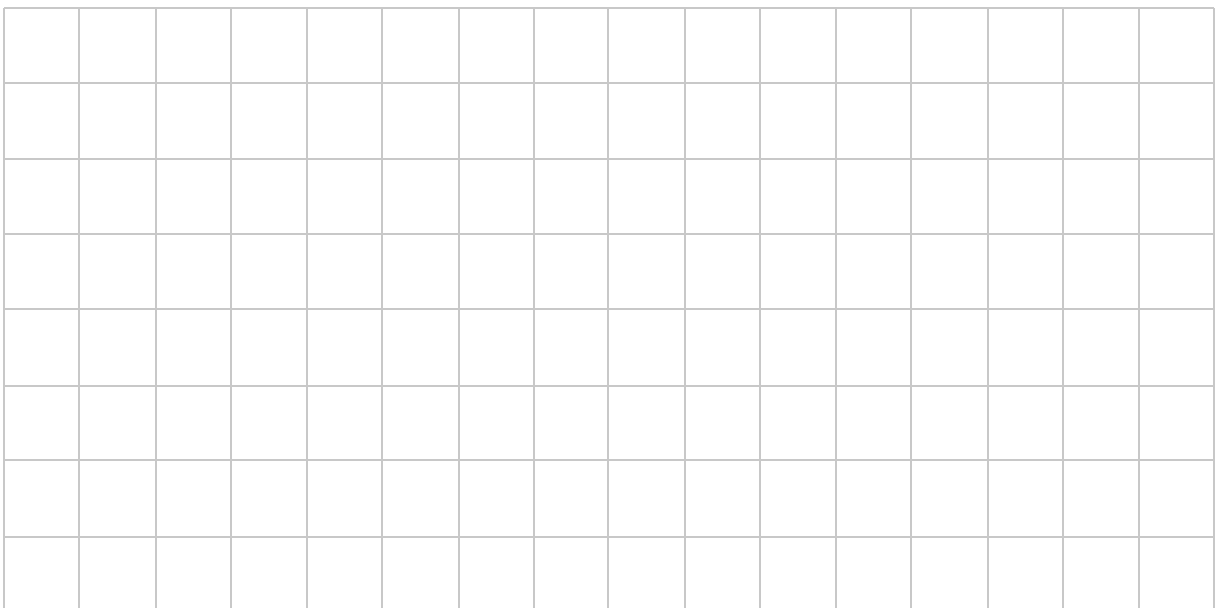
Each grid below has small squares with sides of length 1 cm.

**(a)** **Draw** a square on the grid below with an area of 16 cm².

(b) **Draw** a rectangle on the grid below with an area of 12 cm².

(c) **Draw** a triangle on the grid below with an area of 7 cm².
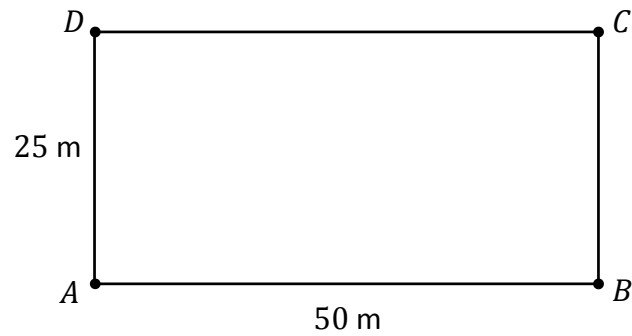Show your working out.

(e) Use the theorem of **Pythagoras** to find the value of h, the perpendicular height of the isosceles triangle shown in the diagram below. Give your answer in cm, correct to one decimal place.
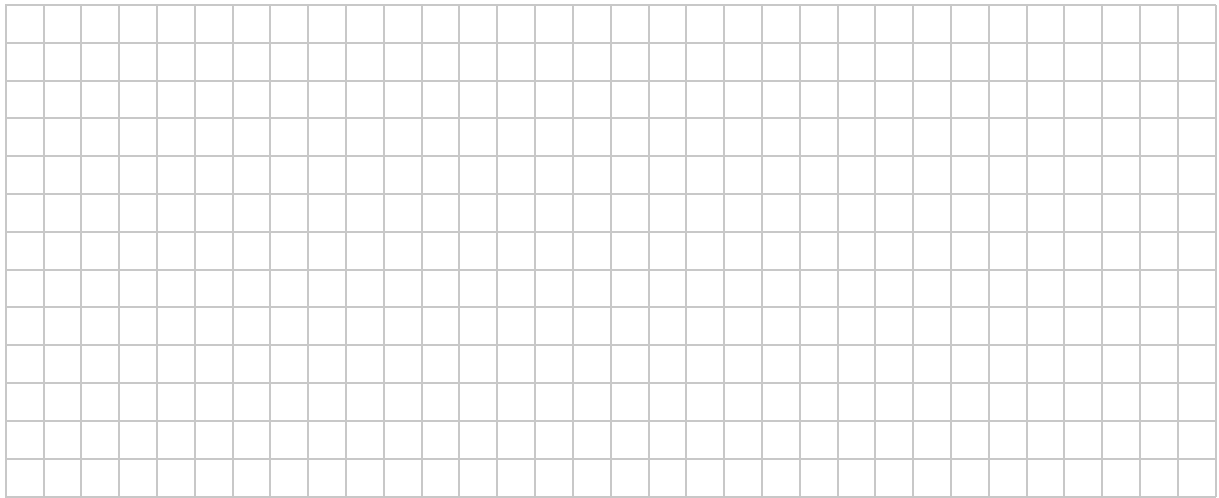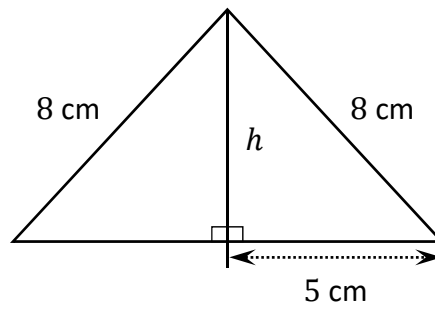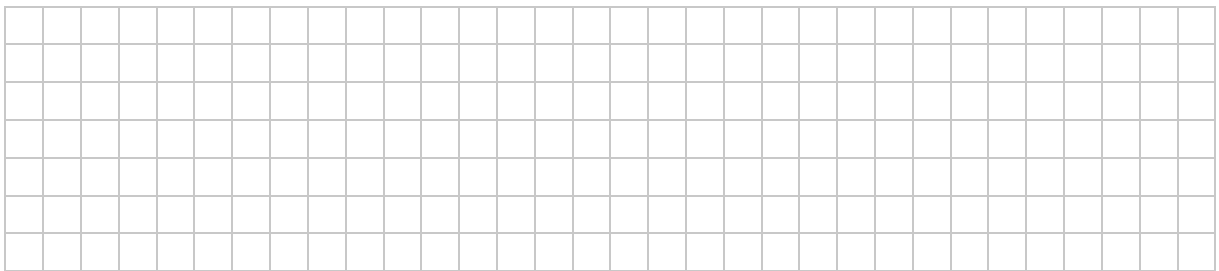
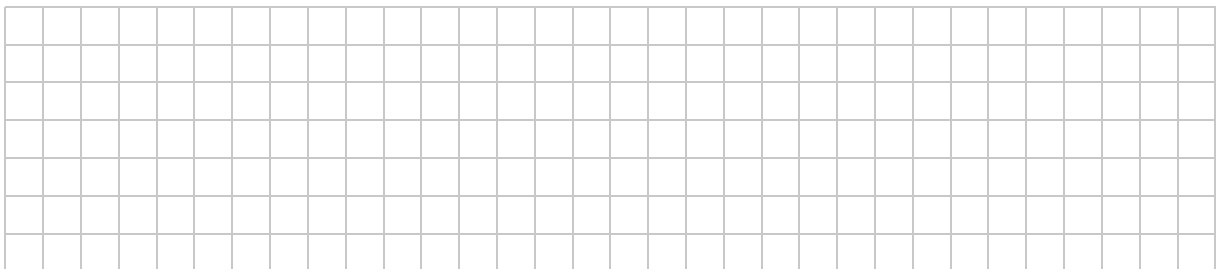**Question 2** (Suggested maximum time: 15 minutes)

A rectangle $ABCD$ has a length of 50 m and a width of 25 m.
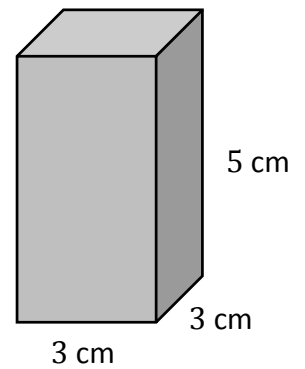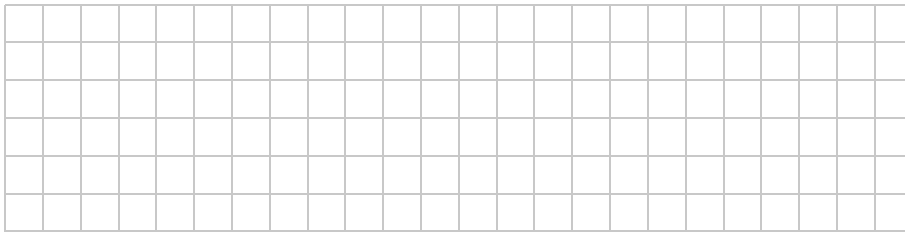

(a) Find the **area** of the rectangle $ABCD$.

(b) Find the length of the **perimeter** of the rectangle $ABCD$.
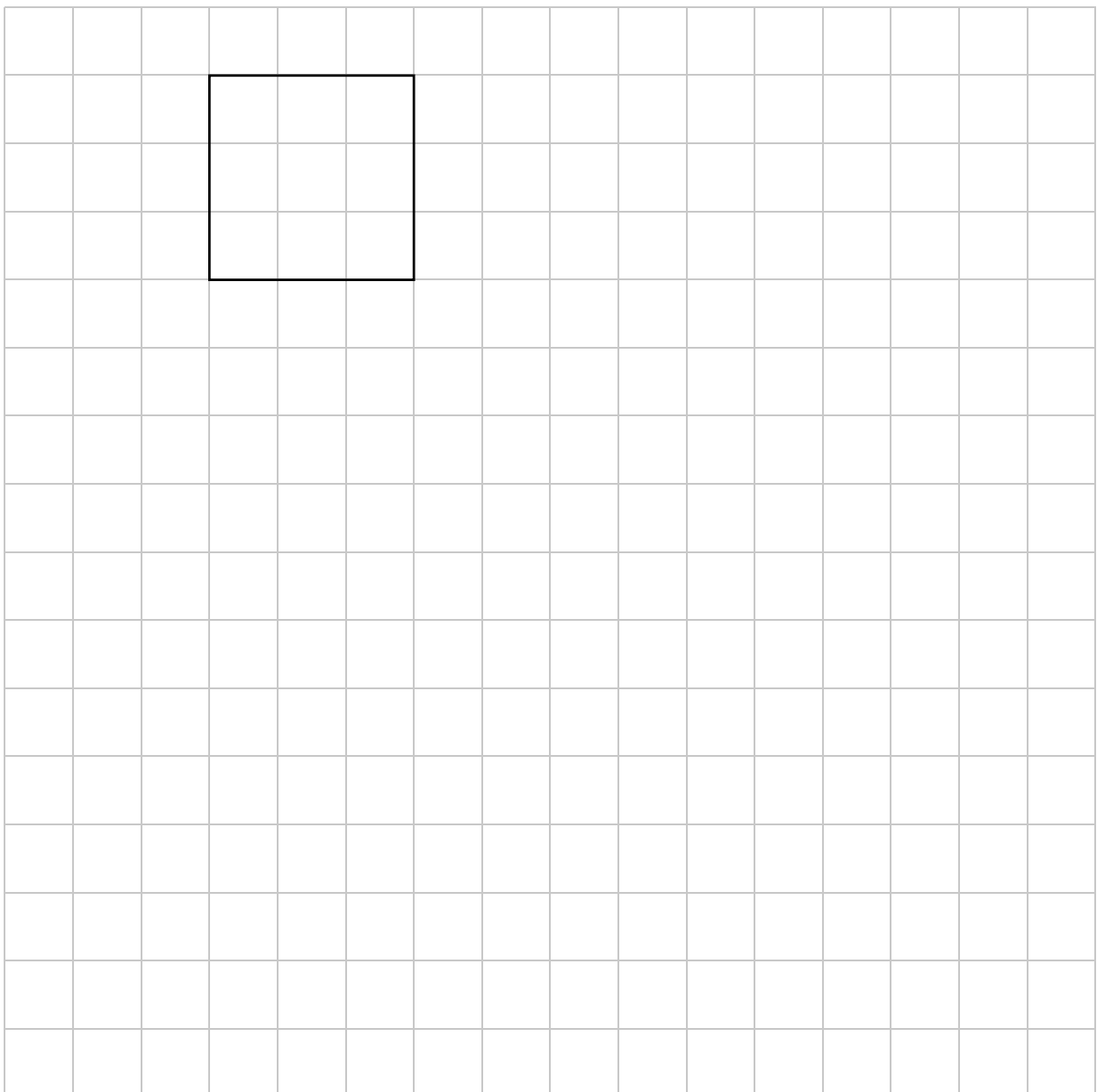
Question 3   **(Suggested maximum time: 15 minutes)**

A closed rectangular box has a square base with sides of length 3 cm, and a height of 5 cm.
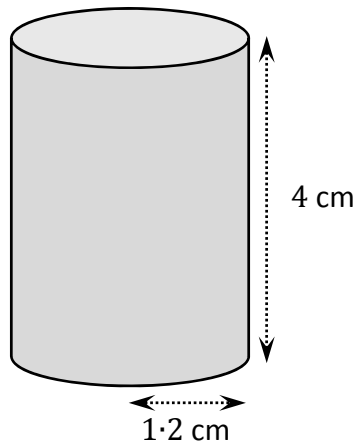
(a)   Find the **volume** of the box.

5 cm

3 cm

3 cm

(b)   The diagram below shows part of a **net** of the box.
       Complete the net, as accurately as you can.

A candle in the shape of a **cylinder** is put into the box.
The candle has a height of 4 cm and a radius of 1·2 cm.

4 cm

1·2 cm

(c) Find the **volume** of the candle. Give your answer correct to the nearest cm³.