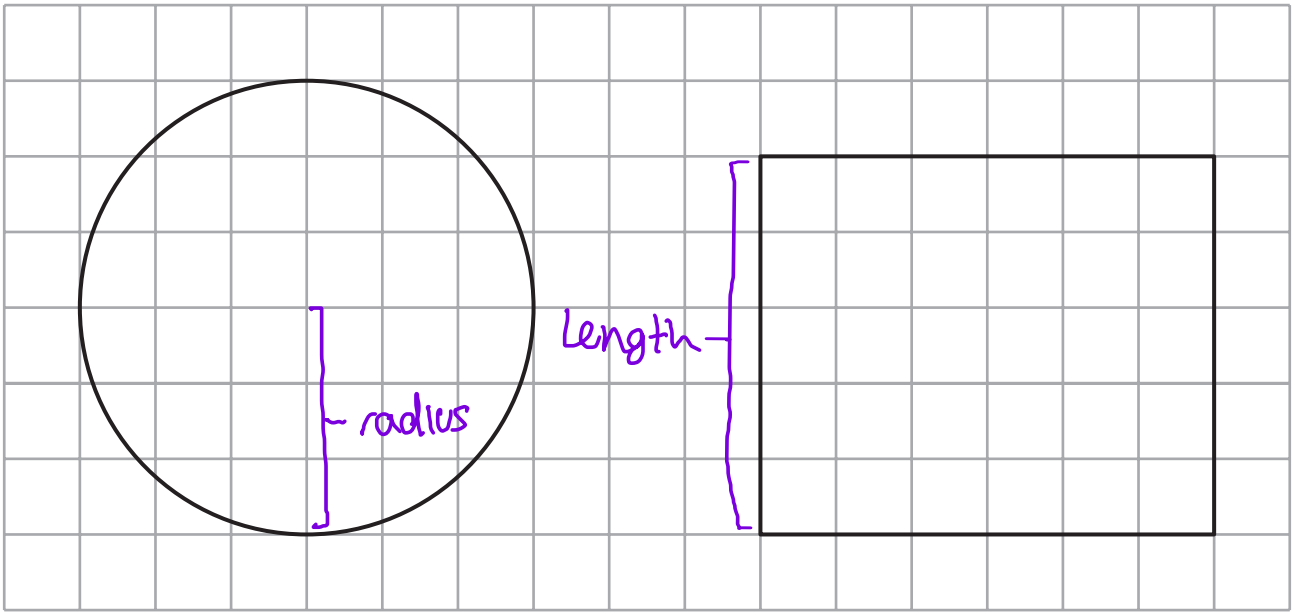
1 The centimetre grid shows the plan and the front elevation of a cylinder.



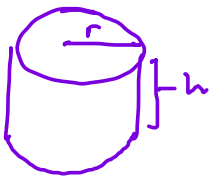
Plan Front elevation

Work out the volume of the cylinder.
Give your answer in terms of π

Find radius of the cylinder by counting squares

Radius = 3 squares = 3cm

∴ Area of crossection is $\pi r^2 = \pi(3)^2 = 9\pi$ (1)



Find length of cylinder

Length = 5 squares = 5cm

Area of cylinder = area of crossection x length

∴ area is $9\pi \times 5 = 45\pi$ (1)

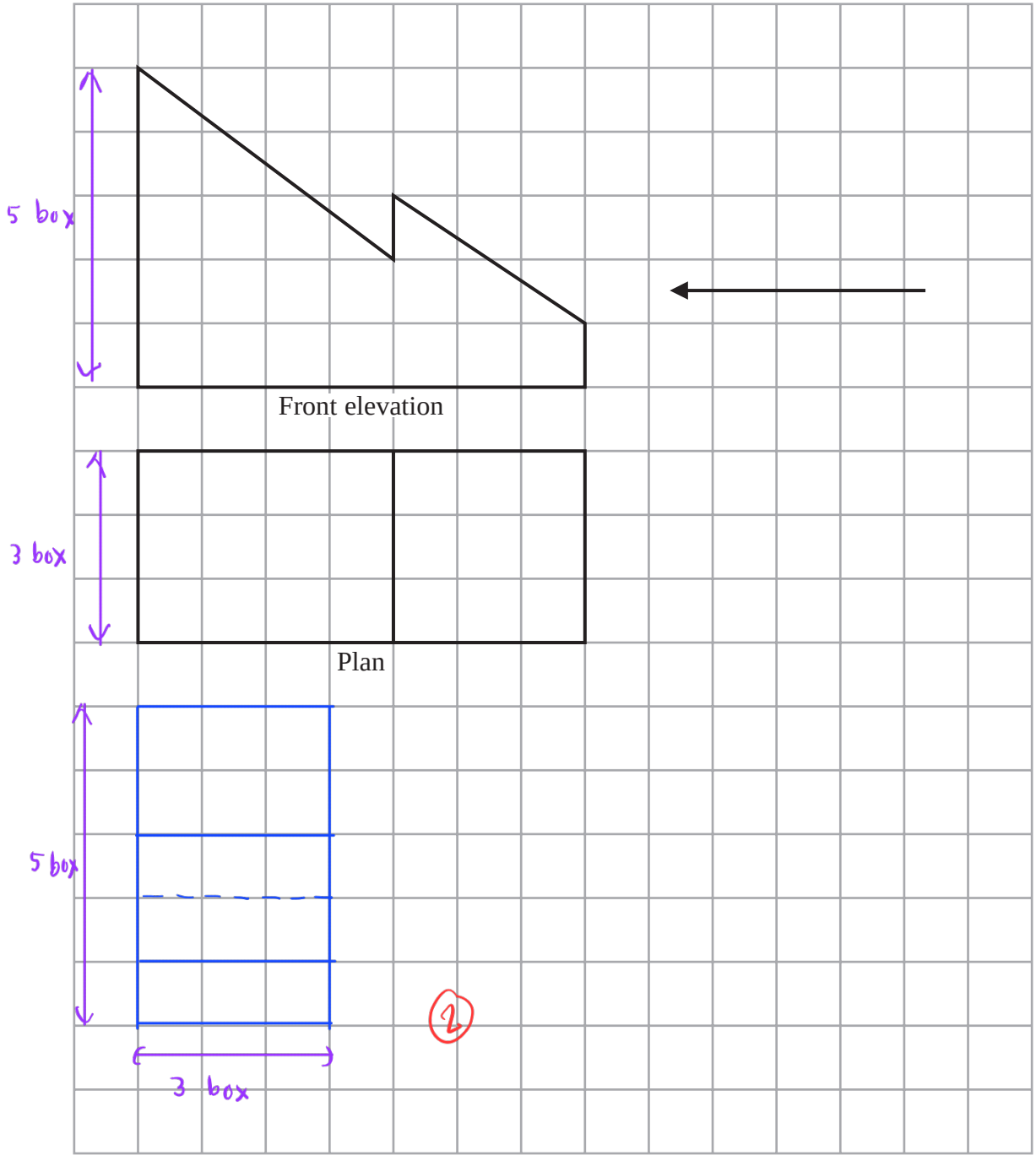
(1)

45π ..... cm^3

(Total for Question 1 is 3 marks)

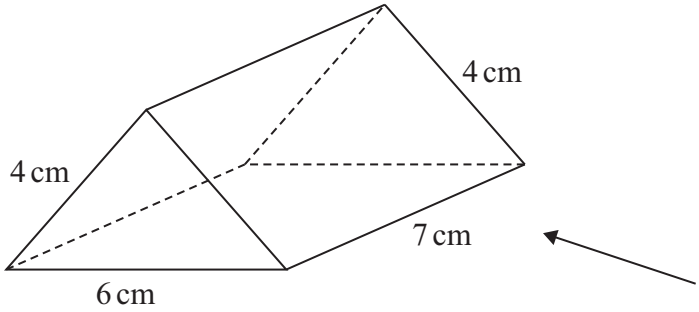
2 The front elevation and the plan of a solid are shown on the grid.

On the grid, draw the side elevation of the solid from the direction of the arrow.



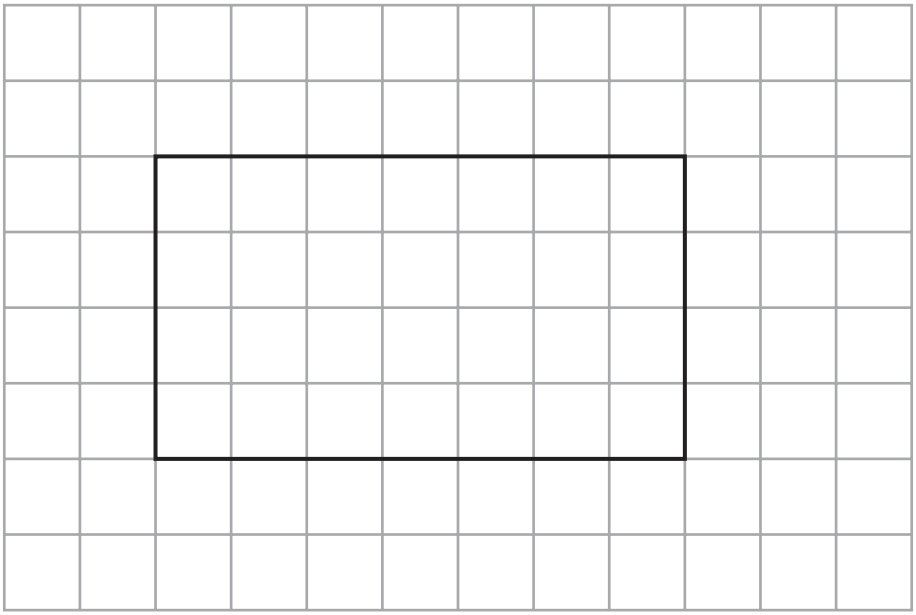
(Total for Question 2 is 2 marks)

3 The diagram shows a solid triangular prism.



Rana is trying to draw the side elevation of the solid prism from the direction of the arrow.

Here is her answer on a centimetre grid.

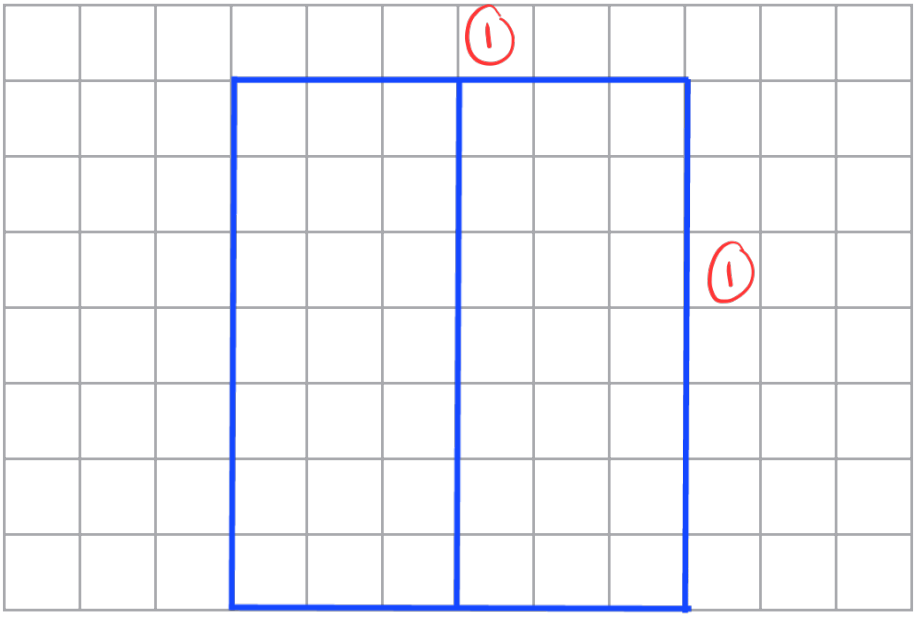


(a) Explain why Rana's side elevation is not correct.

The height is not 4 cm. It should be $\sqrt{7}$ (1)

(1)

(b) On the centimetre grid below, draw a plan of the solid prism.



(2)

(Total for Question 3 is 3 marks)