

Delta 2

Unit 3 Review (Calculator Allowed)

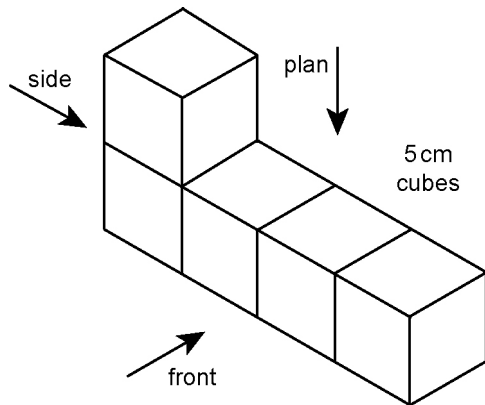
2D Shapes and 3D Solids

How well did you do:

2D Shapes and 3D Solids	Score = $\frac{\quad}{43}$	
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<i>Topics/skills which need to be revisited:</i>	<i>Questions from the review:</i>	<i>Further Practice from Delta 2:</i>
• Draw the plan and elevations when given a 3D drawing	• 1	• P66 Q2
• Recognise net of triangular prism • Calculate surface area of a prism	• 4 • 9	• P67 Q5a • P66 Q3, P67 Q6
• Calculate the volume of a prism • Use prism volume formula in reverse to find a side length of a prism	• 6 • 11	• P67 Q5c • P74 Q10
• Calculate the circumference • Calculate the area of a compound shape containing circles • Name parts of a circle	• 2 • 3 • 5	• P65 Q3c,4b • P66 Q9 • P52 copy the Key Point
• Use circle area formula in reverse to find diameter and/or radius	• 8	• P74 Q7b
• Calculate the volume of a cylinder • Calculate the surface area of a cylinder	• 10a • 10b	• P67 Q7e • P67 Q7d
• Use Pythagoras to calculate one of the shorter sides of a triangle • Use Pythagoras to find the distance between 2 coordinate points	• 7 • 12	• P68 Q3 • P74 Q9

1 This model is made from 5 centimetre cubes.



Draw the plan, the front elevation and the side elevation of the model.

Plan	Front	Side

(Total 3 marks)

2 Aysha's new bike has 26 inch diameter wheels.

What is the circumference of her new wheel?

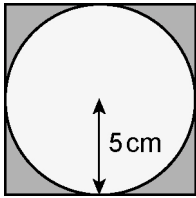
Give your answer correct to 1 decimal place.

.....inches

(Total 2 marks)

3 a

Find the area of the dark-shaded region in this diagram, giving your answer correct to 1 decimal place.



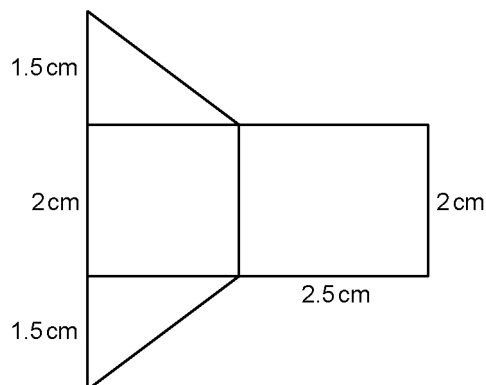
.....cm²
[4]

b Convert your answer to **part a** into mm²

.....mm²
[1]

(Total 5 marks)

4 The diagram shows an incomplete net of a solid shape.



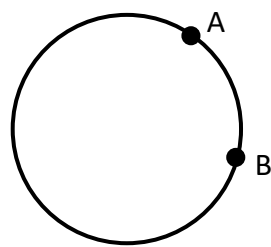
a Add a face to complete the net, showing the dimensions. [2]

b What is the name of this solid?

.....
[1]

(Total 3 marks)

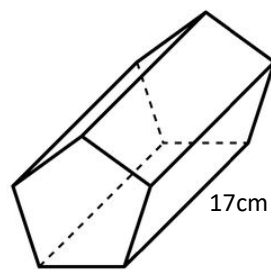
5 What is the name given to the distance AB below, which is part of the circumference of a circle?



.....
(Total 1 mark)

6 Find the volume of these prisms.

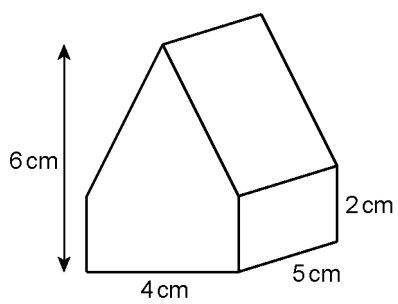
a



Area of pentagon = 25cm^2

..... cm^3
[2]

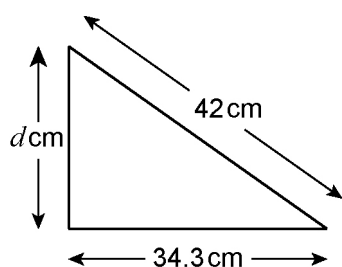
b



..... cm^3

(Total 6 marks)

- 7 Find the length of the side marked d in this right-angled triangle. Give your answer correct to 3 significant figures.



.....cm

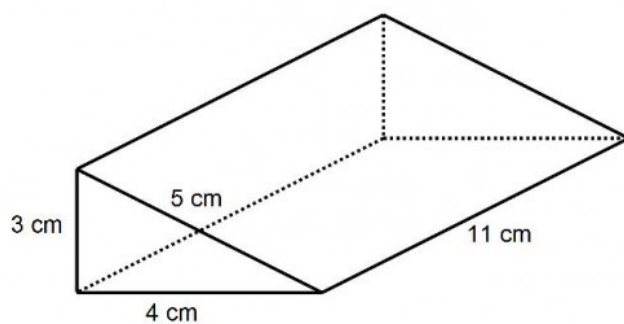
(Total 3 marks)

- 8 The area of a circular cake plate is 1520 cm^2 . Find the *diameter* of the plate *to the nearest cm*.

.....cm

(Total 3 marks)

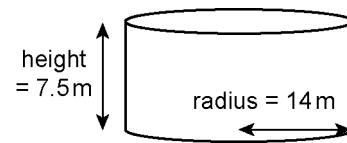
- 9 Find the total surface area of this triangular prism.

.....cm²

(Total 4 marks)

10 For this cylinder, calculate:

a its volume, to 1 d.p.



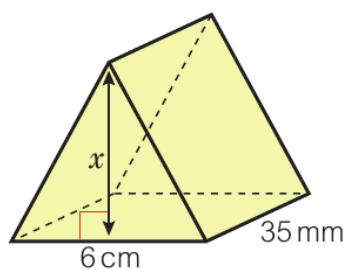
.....m³
[2]

b its total surface area, to 1 d.p.

.....m²
[4]

(Total 6 marks)

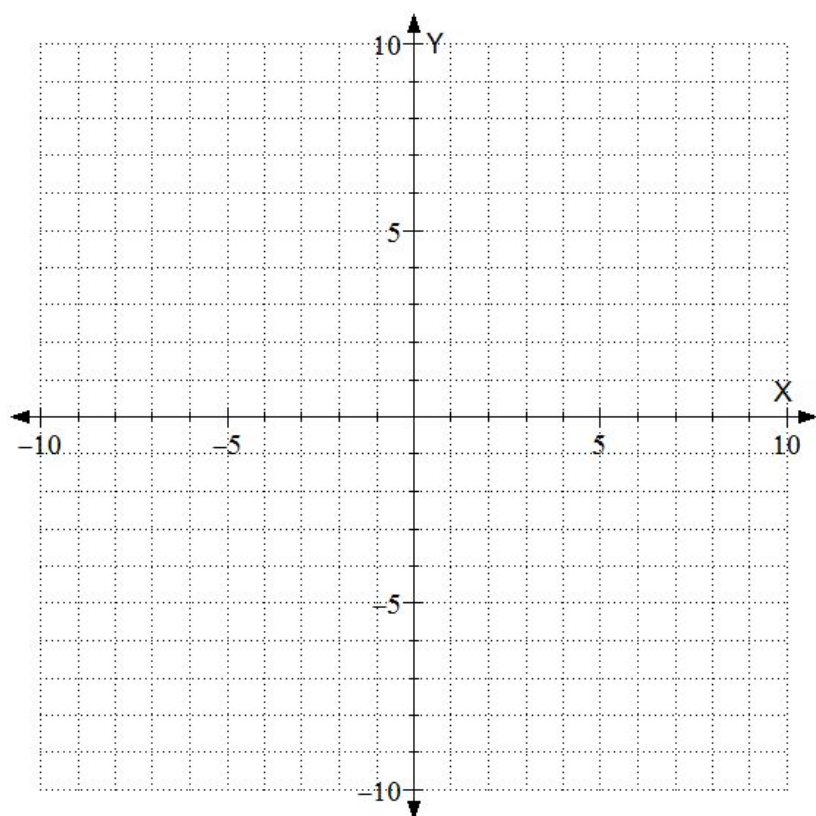
- 11 The volume of this prism is 84 cm^3 . Calculate the length x .



.....
(Total 3 marks)

- 12 Find the distance between the point $P(-3, -8)$ and $Q(2, 4)$.

Hint: a sketch is useful, but not necessary.



.....units

(Total 4 marks)

[End of Review]