Name:

Exam Style Questions

Volume of a Prism

Corbettmaths

Equipment needed: Pen and Calculator

Guidance

1. Read each question carefully before you begin answering it.
2. Check your answers seem right.
3. Always show your workings

Video Tutorial

www.corbettmaths.com/contents

Video 356

Answers and Video Solutions

1. Shown below is a cuboid.

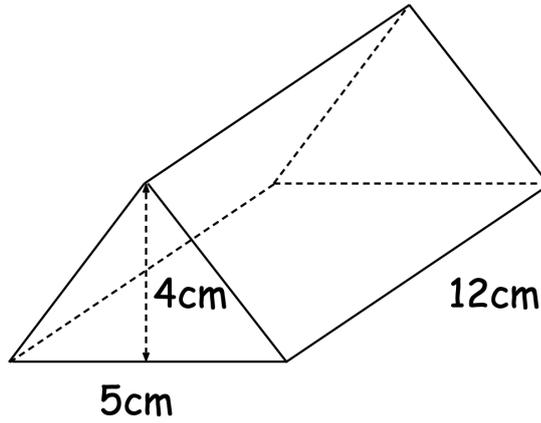2cm

3cm

9cm
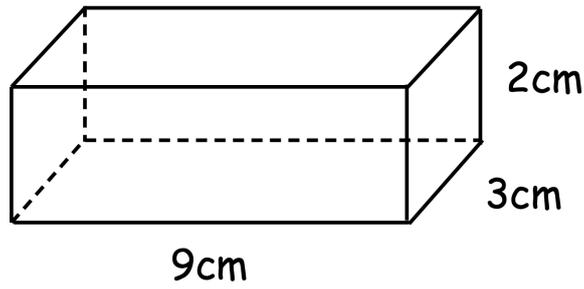
Find the volume of the cuboid.
Include units.

....
(2)

2. Shown below is a cube.

5cm
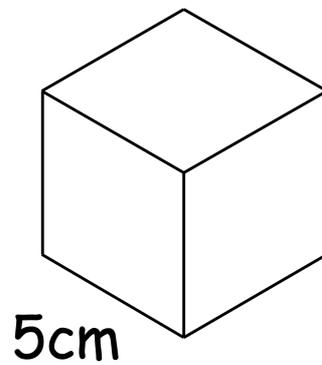
Find the volume of the cube.
Include units.

....
(2)

3. Shown below is a triangular prism.

Find the volume of the prism.

..........................cm³

(3)

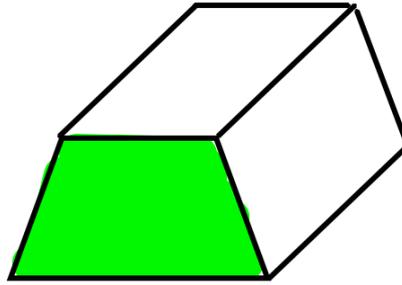4. Shown below is a prism.
The cross-sectional area is 21cm²
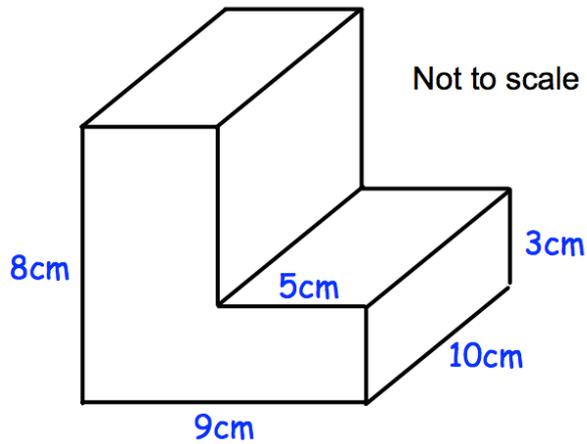The prism has a length of 6cm
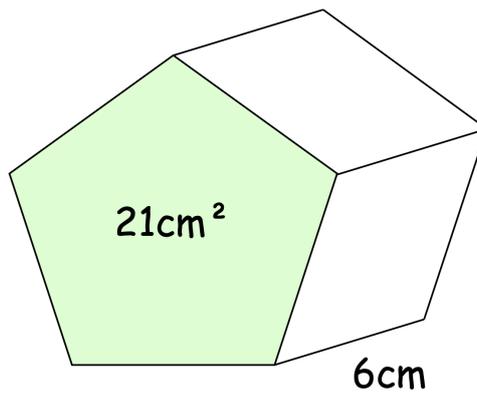
Find the volume of the prism.

..........................cm³

(2)

5. The diagram shows a trapezoid prism.
   The area of the cross-section is 55cm²
   The volume of the prism is 330cm³

   Find the length of the prism.

   ....cm
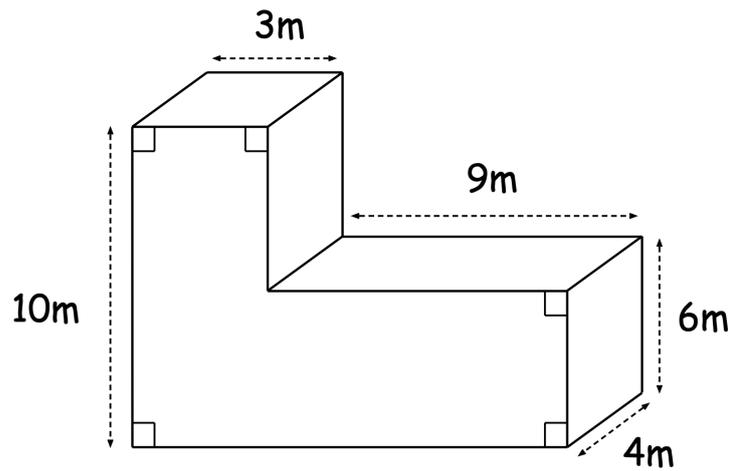
   (2)

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6. The diagram shows a prism.

   Not to scale

   8cm

   5cm

   3cm

   10cm

   9cm

   Work out the volume of the prism.

   ....cm³

   (4)

7. Shown below is a prism.

3m

9m

10m

6m

4m

Work out the volume of the prism.

......................m³

(3)

8. Shown below is a triangular prism.

3cm

7cm

10cm
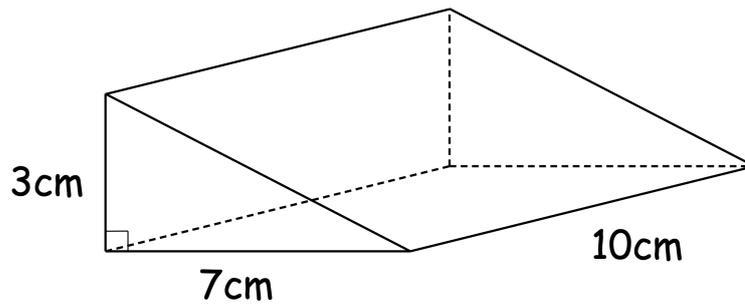
Find the volume of the triangular prism.

......................cm³

(3)

9. Shown below is a triangular prism.
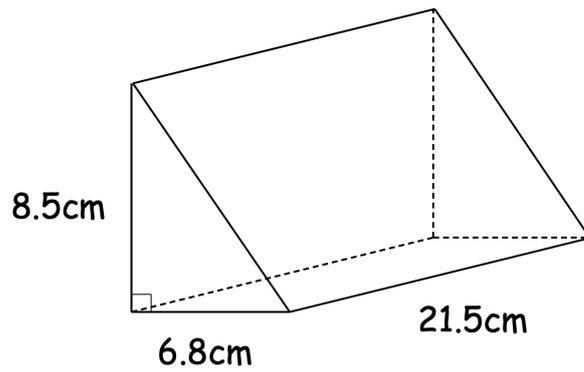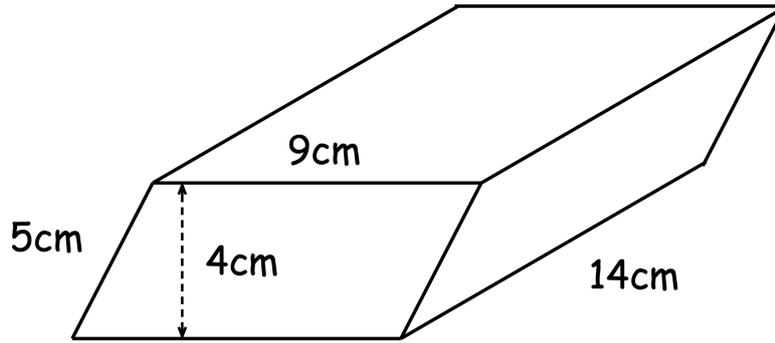
Find the volume of the triangular prism.

...........................cm³

(3)

10. Shown below is a trapezoid prism.
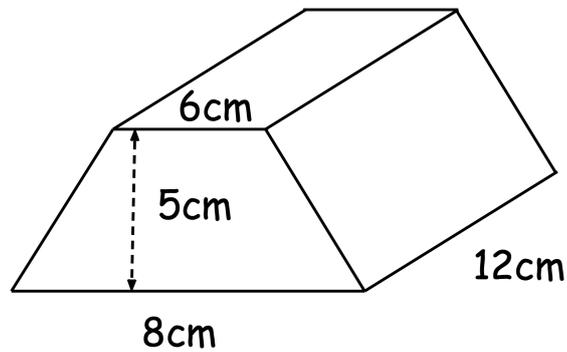
Find the volume of the prism.

...........................cm³

(4)

11. Shown below is a prism.
The cross-section is a parallelogram.
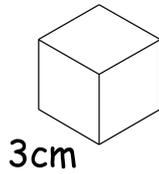
9cm

5cm

4cm

14cm

Find the volume of the prism.

.........................cm³

(3)

12. The solid triangular prism shown below is made from metal.
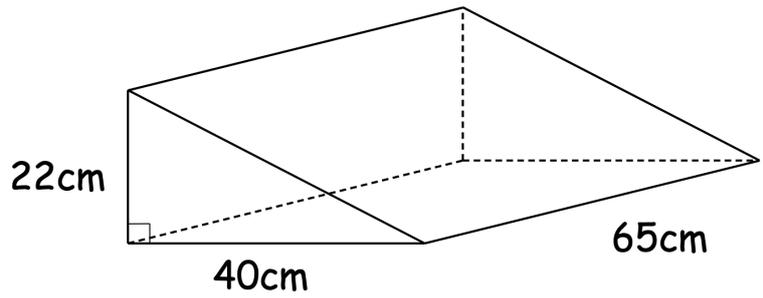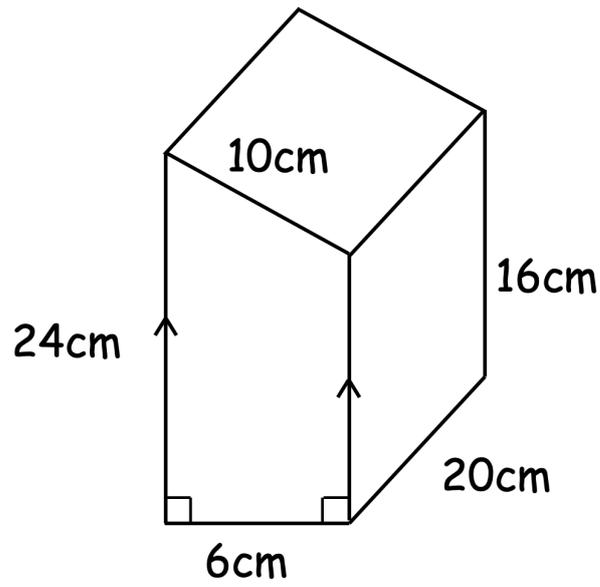

The prism is melted down and the metal is used to make solid cubes, each with side length 3cm.
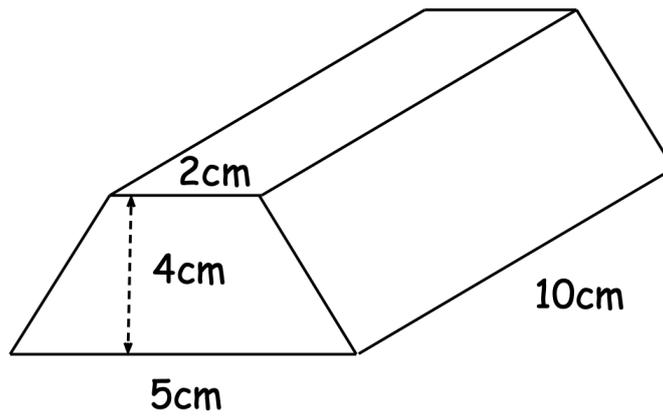

How many cubes can be made?

....

(4)

13. Shown below is a prism.

Work out the volume of the prism.

.........................cm³

(3)

14. Siobhan has a solid glass paperweight.

The density of the glass is 2.5g/cm³

Work out the mass of the paperweight.
Include suitable units.

....
(4)

15. Shown below is a triangular prism.
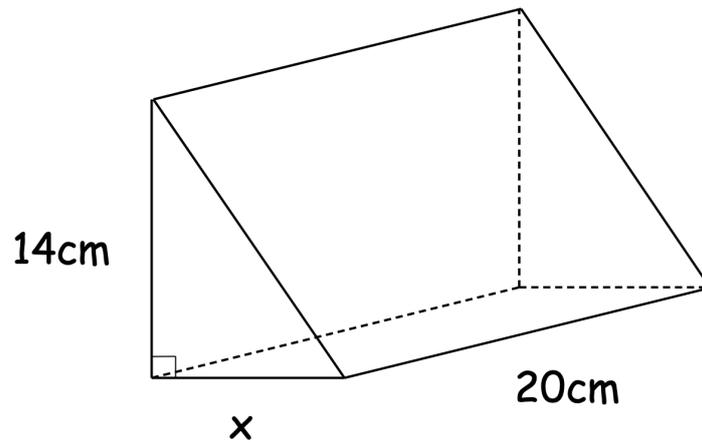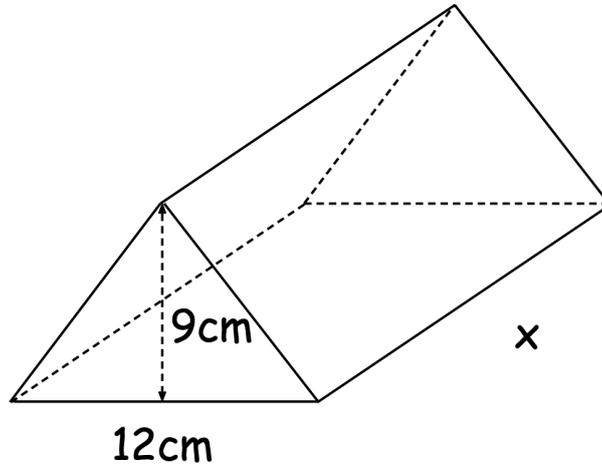

The height of the triangle is 14cm
The length of the prism is 20cm

The volume of the prism is 1232cm³

Work out the length of the base of the triangle.

.........................cm

(3)

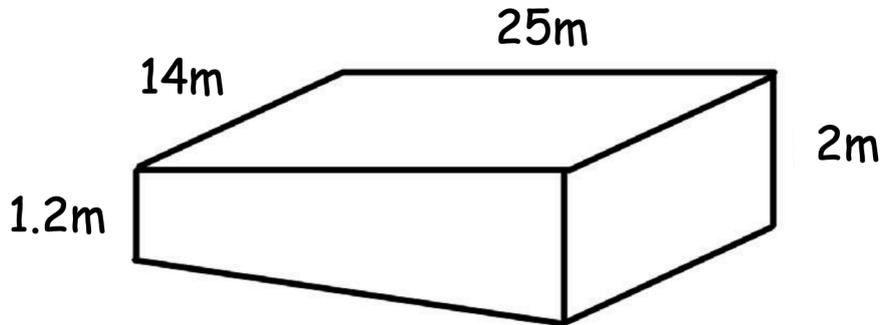16. Shown below is a solid triangular prism.
The prism is made from titanium.

9cm

12cm

x

The mass of the prism is 9.45kg
The density of the titanium is 4.5g/cm³

Find the length of the prism.

.........................cm

(4)

17. Shown below is a swimming pool, that is full of water.
The swimming pool is a prism.
The cross section of the swimming pool is a trapezium.

25m

14m

2m

1.2m

Kevaughn begins to empty the swimming pool at a constant rate.
The level of the water goes down by 3cm in the first 15 minutes.

Work out how long it takes in total to empty the swimming pool.

…………………….hours …………………….minutes

(6)