Exam Style Questions

Volume of a Cube
Volume of a Cuboid

Ensure you have: Pencil, pen, ruler, protractor, pair of compasses and eraser
You may use tracing paper if needed

Guidance

1. Read each question carefully before you begin answering it.
2. Don’t spend too long on one question.
3. Attempt every question.
4. Check your answers seem right.
5. Always show your workings

Revision for this topic

Secondary

Video 355

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1. Shown below is a cube of side 5cm.

Work out the volume of the cube.
State the units of your answer.

\[ \text{Volume} = 5 \times 5 \times 5 \text{ cm}^3 \]

2. Calculate the volume of a cube with side length 6cm.
State the units of your answer.

\[ \text{Volume} = 6 \times 6 \times 6 \text{ cm}^3 \]
3. Shown below is a solid cuboid.

Work out the volume of the cuboid.

\[ \text{Volume} = 9 \times 3 \times 2 = 54 \text{ cm}^3 \]

(2)

4. Here is a cuboid.

Work out the volume of the cuboid.

\[ \text{Volume} = 5 \times 3 \times 3 = 45 \text{ cm}^3 \]

(2)
5. Work out the volume of this cuboid.
   State the units of your answer.

6. Work out the volume of this cuboid.
   State the units of your answer.
7. A cuboid is drawn below.

The volume of the cuboid is 105cm³.
Find \( y \).

\[ \text{Volume} = 7 \times 3 \times y \]

\[ 105cm^3 = 21y \]

\[ y = \frac{105}{21} \]

\[ y = 5 \]

\[ \text{cm} \]

8. The volume of the cuboid is 2700cm³.
Find \( y \).

\[ \text{Volume} = 10 \times 9 \times y \]

\[ 2700cm^3 = 90y \]

\[ y = \frac{2700}{90} \]

\[ y = 30 \]

\[ \text{cm} \]
9. A cube is shown below.

![Cube Diagram]

The volume of the cube is \(27\text{cm}^3\).

Find \(x\).

\[\text{.........cm}\]

(2)

10. Shown below are two cuboids.

![Cuboids Diagram]

Both cuboids have the same volume.

Find \(y\).

\[\text{.........cm}\]

(3)
11. Shown below is a cereal box.

![Image of cereal box]

Calculate the volume of the box.

..........................cm³

(2)

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12. A carton of milk is shown below. The carton is in the shape of a cuboid.

The depth of the milk in the carton is 12cm.

The carton is turned so that it stands on the shaded (orange) face.

Work out the depth of the milk now.

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

(3)

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13. A cuboid has a volume of 135cm\(^3\).
The area of the base of the cuboid is 15cm\(^2\).
Work out the height of the cuboid.

..........................cm
(2)