

Max's Magnificent Volume Challenge

Learning objective: Calculate the volume of cubes and cuboids in cubic centimetres (cm³) and understand the relationship between volume and capacity.

Help Max the monkey solve these puzzles! Remember, to find the volume of a cuboid, use the formula: Length × Width × Height. Write your answers clearly.

Answer Key: 1. B (125cm³), 2. True, 3. False (it is 72cm³), 4. 24cm³, 5. C (Length × Width × Height), 6. True, 7. 1000cm³, 8. A (48cm³), 9. False (1 litre = 1000cm³), 10. 60cm³.

Word bank: Volume · Cuboid · Cubic · Capacity · Formula · Dimensions

1. Max has a cube with sides of 5cm. What is the volume? A) 25cm³, B) 125cm³*, C) 15cm³, D) 50cm³ (1 mark)

2. True or False: The volume of a shape is the amount of space it occupies. (1 mark)

3. True or False: A cuboid measuring 3cm by 4cm by 8cm has a volume of 80cm³. (1 mark)

4. A small toy box has a length of 4cm, a width of 2cm, and a height of 3cm. What is its volume in cm³? (1 mark)

5. What is the correct formula to find the volume of a cuboid? A) Length + Width + Height, B) (Length × Width) × 2, C) Length × Width × Height*, D) Width × Height (1 mark)

6. True or False: A cube with 1cm sides has a volume of 1cm³. (1 mark)

7. If a large storage crate has a volume of 1m³, how many cubic centimetres (cm³) is that equal to? (1 mark)

8. Max finds a block with a base area of 12cm² and a height of 4cm. What is the volume? A) 48cm³*, B) 16cm³, C) 36cm³, D) 40cm³ (1 mark)

9. True or False: 500cm³ is exactly the same as 5 litres. (1 mark)

10. A book has a length of 10cm, a width of 6cm, and a height of 1cm. What is its volume? (1 mark)

Draw: Draw a cuboid on squared paper and label the length 5cm, the width 2cm, and the height 3cm. Calculate the volume inside the shape.



Extension challenge: Max wants to build a tower using 60 identical 1cm^3 cubes. How many different ways can he arrange the base length and width so the tower is exactly 5cm tall?