# Match-Up — Volume of Cubes and Cuboids

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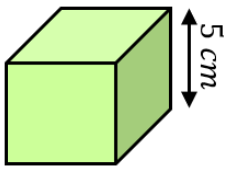
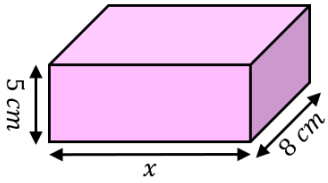
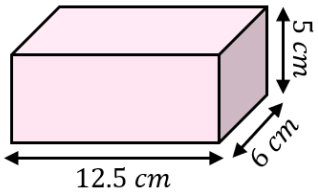
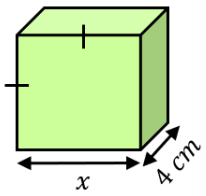
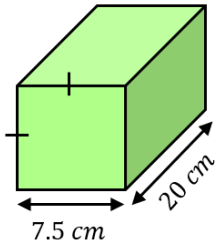
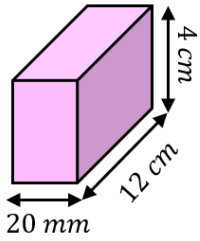
|---|---|---|---|---|---|
| **1** | Find the volume of the cube.<br>  | **5** | The volume is $420\ cm^3$. Find $x$.<br>  | **9** | A cuboid with dimensions $12\ cm$ by $24\ cm$ by $40\ cm$ is filled by $180$ identical cubes. What is the length of the side of a cube? |
| **2** | Find the volume.<br>  | **6** | The volume is $289\ cm^3$. Find $x$.<br>  | **10** | The volume of a cube is twice the volume of a cuboid with dimensions $3\ cm$ by $4\ cm$ by $9\ cm$. Find the side length of the cube. |
| **3** | Find the volume.<br>  | **7** | Find the side length of a cube with volume $3375\ cm^3$. | **11** | A cuboid has side lengths in the ratio $2 : 4 : 5$. If the shortest side length is $5\ cm$, find the volume of the cuboid. |
| **4** | Find the volume.<br>  | **8** | Find the volume of a cuboid whose side lengths in $cm$ are the first, third and fifth prime numbers. | **12** | A cuboid has sides of length $x$, $x$ and $3x$. Its volume is $1536\ cm^3$. Find the value of $x$. |

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|---|---|---|---|---|---|---|---|
| **A** | $15\ cm$ | **D** | $8\ cm$ | **G** | $10.5\ cm$ | **J** | $4\ cm$ |
| **B** | $110\ cm^3$ | **E** | $8.5\ cm$ | **H** | $625\ cm^3$ | **K** | $125\ cm^3$ |
| **C** | $6\ cm$ | **F** | $375\ cm^3$ | **I** | $96\ cm^3$ | **L** | $1125\ cm^3$ |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| K | F | L | I | G | E | A | B | J | C | H | D |