



Volume with fractional edge lengths

GRADE 6 MATH

Name _____

Date _____

Do this on your own — the worked example shows what to do. Show the three edge lengths you multiplied; answers in the boxes with cubic units. One skill: **volume with fractional edge lengths**.

WORKED EXAMPLE

$V = l \times w \times h$. Convert mixed numbers first ($2\frac{1}{2} = \frac{5}{2}$). If any edge is less than 1 unit, the volume will be smaller than the product of the other two — that is a useful check.

1. Find the volume of a prism 4 by 5 by 2.

FLUENCY

Show your thinking

Answer

2. Find the volume of a prism $\frac{1}{2}$ by $\frac{1}{3}$ by $\frac{1}{4}$.

FLUENCY

Show your thinking

Answer

3. Find the volume of a prism 6 by 3 by 2.

FLUENCY

Show your thinking

Answer

4. Find the volume of a prism $4\frac{1}{2}$ by 2 by 3.

APPLICATION

Show your thinking

Answer

5. Find the volume of a prism $\frac{2}{3}$ by 3 by 5.

APPLICATION

Show your thinking

Answer

6. Find the volume of a prism $3\frac{1}{2}$ by $2\frac{1}{2}$ by 4.

APPLICATION

Show your thinking

Answer

7. How many cubes of edge $\frac{1}{3}$ unit fit inside a box 1 by $\frac{2}{3}$ by 1? Show how you counted along each edge.

REASONING

Show your thinking

Answer

8. A prism has volume 45 cubic units, length 5 and height 3. Find its width and explain your method.

REASONING

Show your thinking

Answer