

Grade 6 - Volume of Prisms with Fractional Edges - Test

Common Core 6.G.A.2 · maths-pdf.fr/en/

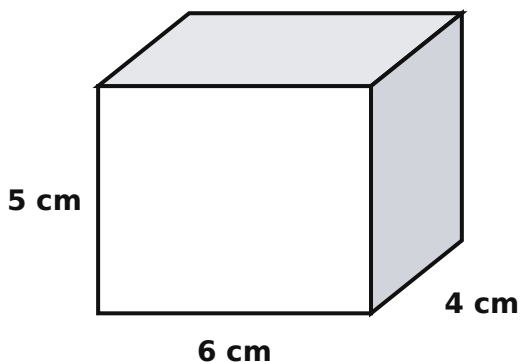
Name: _____ Class: _____ Date: ____/____/____

This 45-minute test has 9 questions worth 20 points. It covers the volume of prisms with fractional edges, unit-cube packing, missing dimensions, and real-world problems (Common Core 6.G.A.2). Show your work for full credit.

About this test

- Grade: Grade 6
- Chapter: Volume of Prisms with Fractional Edges
- Standards: 6.G.A.2
- Time: 45 minutes
- Total: 20 points

Question 1 - Volume of a prism [2 pts]



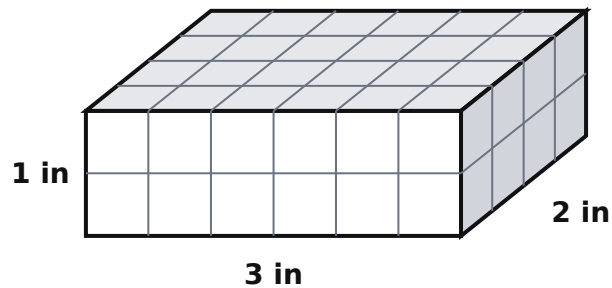
A box.

Find the volume of the prism.

Question 2 - Fractional edge [2 pts]

Find the volume of a prism with length $2\frac{1}{2}$ feet, width 4 feet, and height 2 feet.

Question 3 - Unit cubes [2 pts]



Each cube has an edge of $\frac{1}{2}$ inch.

The prism is filled with cubes with edge $\frac{1}{2}$ inch. How many cubes are there, and what is the volume of the prism?

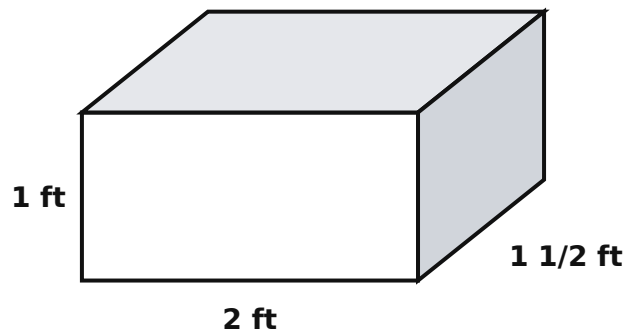
Question 4 - Base times height [2 pts]

A prism has a base area of $\frac{2}{3}$ square meter and a height of 9 meters. Find its volume.

Question 5 - Missing dimension [2 pts]

A box has a volume of 60 cubic inches, a length of 5 inches, and a width of 4 inches. Find its height.

Question 6 - Water in a tank [2 pts]



An aquarium.

An aquarium is 2 feet long, $1\frac{1}{2}$ feet wide, and 1 foot tall. Find how much water it holds when full.

Question 7 - Compare boxes [2 pts]

Box A is 5 by 4 by 3 inches. Box B is 6 by 3 by 3 inches. Which box has the greater volume and by how much?

Question 8 - Packing [3 pts]

A storage bin is 3 feet by 2 feet by $1\frac{1}{2}$ feet. Cubes with an edge of $\frac{1}{2}$ foot are packed inside. How many cubes fit, and what is the volume of each cube?

Question 9 - Sand for a play area [3 pts]

A play area is a rectangle 8 feet by 5 feet. Sand will be $\frac{3}{4}$ foot deep. Sand costs \$4 per cubic foot. Find the volume of sand and the total cost.