Volume of Rectangular Prisms with Fractions

Today's Standard

6.G.A2 - Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths, and show that the volume is the same as would be found by multiplying the edge lengths of the prism. Apply the formulas V = l w h and V = b h to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.

Cues	Notes
What is volume?	Volume is the amount of space inside a three-dimensional object.
How do you calculate the volume of a rectangular prism?	The volume of a rectangular prism is found by multiplying its length, width, and height.
What are fractional edge lengths?	Fractional edge lengths are dimensions expressed as fractions rather than whole numbers.
What formulas are used to find volume?	Use the formulas V = l w h and V = b h to find the volume of rectangular prisms.
What are common misconceptions about volume with fractions?	Common misconceptions include thinking fractional dimensions cannot be used and adding instead of multiplying edge lengths.

Summary

Understanding the volume of rectangular prisms with fractional edge lengths involves using multiplication and specific formulas. Common errors include misunderstanding the use of fractions and incorrect calculations.