

8.10 Volume and Cubic Units

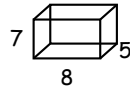
Chapter 8: Geometry and Measurement

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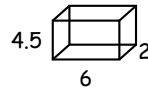
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Problem 8.145 A rectangular prism measures $8 \times 7 \times 5$. Find its volume.



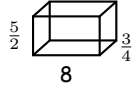
Problem 8.146 A rectangular prism measures $4.5 \times 6 \times 2$. Find its volume.



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Problem 8.147 A rectangular prism measures $\frac{3}{4} \times \frac{5}{2} \times 8$. Find its volume.



Problem 8.149 A cube has side 7. Find volume.

Problem 8.150 A cube has volume 512. Find side length.

Problem 8.148 A rectangular prism has volume 240, length 10, and width 6. Find its height.

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Problem 8.151 A pizza box is $14 \times 14 \times 3.5$ inches. Find volume.

Problem 8.154 Explain why doubling all dimensions multiplies volume by 8.

Problem 8.152 A dresser is $3 \times 8\frac{1}{3} \times 2$ feet. Find volume.

Problem 8.155 Two prisms have the same base area and height. Compare volumes.

Problem 8.153 A rectangular prism measures 2 feet by 18 inches by 1 foot. Convert to one unit and find its volume.

Problem 8.156 Explain the difference between BL and bh in geometric formulas.

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Problem 8.157 A shipping crate holds 24 cubic feet. Each small box measures $2 \times 1.5 \times 0.8$ feet. How many boxes fit by volume if packing is exact?

Problem 8.159 A rectangular prism has integer dimensions and volume 72. List every dimension triple up to order.

Problem 8.158 A tank has base area 45 ft^2 and volume 337.5 ft^3 . Find height.

Problem 8.160 A prism's length is doubled, width is tripled, and height is halved. Find the volume multiplier.