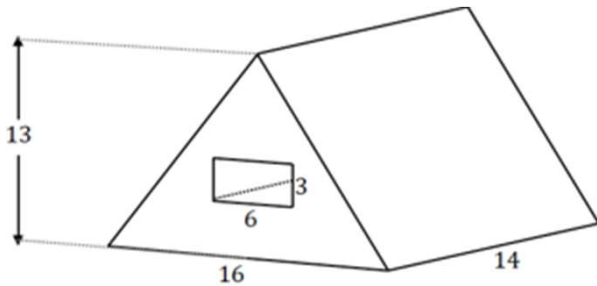
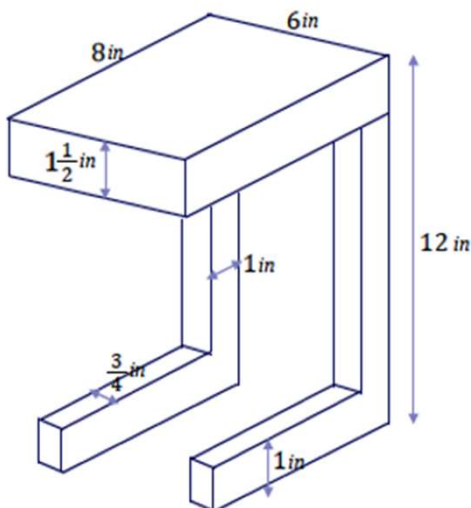


Volume of Composite Prisms Worksheets

1. A triangular prism has a rectangular prism cut out of it from one base to the opposite base, as shown in the figure. Determine the volume of the figure, provided all dimensions are in millimeters.

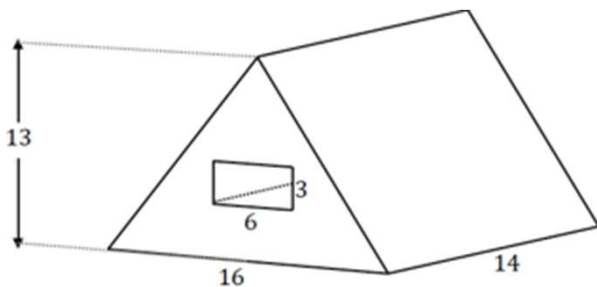


2. Find the volume of wood needed to construct the following side table composed of right rectangular prisms.



Volume of Composite Prisms Worksheets

1. A triangular prism has a rectangular prism cut out of it from one base to the opposite base, as shown in the figure. Determine the volume of the figure, provided all dimensions are in millimeters.



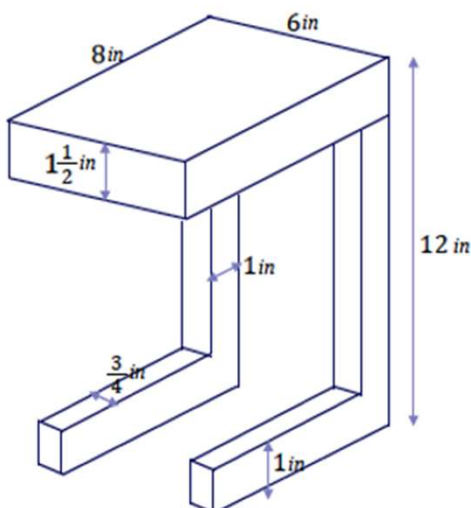
Subtract the volume of the cutout prism from the volume of the main prism.

Volume of the triangular prism: $\left(\frac{1}{2} \cdot 16 \text{ mm} \cdot 13 \text{ mm}\right) (14 \text{ mm}) = 1,456 \text{ mm}^3$

Volume of the rectangular prism: $(6 \text{ mm} \cdot 3 \text{ mm} \cdot 14 \text{ mm}) = 252 \text{ mm}^3$

Volume of the composite prism: $1,456 \text{ mm}^3 - 252 \text{ mm}^3 = 1,204 \text{ mm}^3$

2. Find the volume of wood needed to construct the following side table composed of right rectangular prisms.



Volume of bottom legs: $V = 2(8 \text{ in} \cdot 1 \text{ in} \cdot 0.75 \text{ in.}) = 12 \text{ in}^3$

Volume of vertical legs: $V = 2(1 \text{ in} \cdot 9.5 \text{ in} \cdot 0.75 \text{ in.}) = 14.25 \text{ in}^3$

Volume of tabletop: $V = 8 \text{ in} \cdot 6 \text{ in} \cdot 1.5 \text{ in.} = 72 \text{ in}^3$

The volume of the table is

$12 \text{ in}^3 + 14.25 \text{ in}^3 + 72 \text{ in}^3 = 98.25 \text{ in}^3.$