

Volume of Rectangular Prisms Worksheets

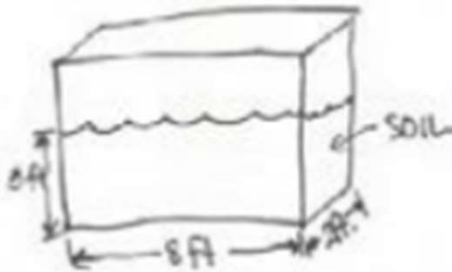
1. Geoffrey's first planter is 8 feet long and 2 feet wide. The container is filled with soil to a height of 3 feet in the planter. What is the volume of soil in the planter? Explain your work using a diagram.

2. tomatoes in four large planters. He wants each planter to have a volume of 320 cubic feet, but he wants them all to be different. Show four different ways Geoffrey can make these planters, and draw diagrams with the planters' measurements on them.

Planter A	Planter B
Planter C	Planter D

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1. Geoffrey's first planter is 8 feet long and 2 feet wide. The container is filled with soil to a height of 3 feet in the planter. What is the volume of soil in the planter? Explain your work using a diagram.



$$\begin{aligned}V &= L \times W \times H \\ &= 8\text{ft} \times 2\text{ft} \times 3\text{ft} \\ &= 48\text{ft}^3\end{aligned}$$

There is 48ft^3 of soil in the planter.

2. tomatoes in four large planters. He wants each planter to have a volume of 320 cubic feet, but he wants them all to be different. Show four different ways Geoffrey can make these planters, and draw diagrams with the planters' measurements on them.

<p>Planter A</p> <p>$V = L \times W \times H$ $= 10\text{ft} \times 8\text{ft} \times 4\text{ft}$ $= 320\text{ft}^3$</p>	<p>Planter B</p> <p>$V = L \times W \times H$ $= 16\text{ft} \times 20\text{ft} \times 1\text{ft}$ $= 320\text{ft}^3$</p>
<p>Planter C</p> <p>$V = L \times W \times H$ $= 32\text{ft} \times 5\text{ft} \times 2\text{ft}$ $= 320\text{ft}^3$</p>	<p>Planter D</p> <p>$V = L \times W \times H$ $= 8\text{ft} \times 8\text{ft} \times 5\text{ft}$ $= 320\text{ft}^3$</p>