



Name

Score

Solve and show all steps.

<p>A shipping company uses cardboard boxes that are 20 inches long, 12 inches wide, and 10 inches high. What is the maximum volume of goods, in cubic inches, that can be packed into one box?</p>	<p>Show all steps here</p>
<p>A farmer has a cylindrical water tank to store irrigation water. The tank has a radius of 3 meters and a height of 7 meters. How much water, in cubic meters, can the tank hold when completely full? (Use $\pi \approx 3.14$)</p>	<p>Show all steps here</p>
<p>An ice cream cone has a height of 12 cm and a radius of 3 cm. If the cone is completely filled with ice cream, what is the volume of the ice cream inside the cone? (Use $\pi \approx 3.14$)</p>	<p>Show all steps here</p>
<p>A standard basketball has a diameter of approximately 24 cm. What is the approximate volume of air inside the basketball? (Use $\pi \approx 3.14$)</p>	<p>Show all steps here</p>
<p>A student builds a model of an Egyptian pyramid. The model has a square base with sides that are each 10 cm long. The height of the model pyramid is 15 cm. What is the volume of the pyramid model?</p>	<p>Show all steps here</p>



Solve and show all steps.

The maximum volume is **2400 cubic inches**.

The tank can hold **197.82 cubic meters** of water.

The volume of ice cream is **113.04 cubic centimeters**.

The approximate volume of air is **7234.56 cubic centimeters**.

The volume of the pyramid model is **500 cubic centimeters**.