

Correct. A soccer ball is shaped like a sphere, so use the formula $V = \frac{4}{3}\pi r^3$. The diameter is 22, so the radius is 11.

$$V = \frac{4}{3}\pi(11)^3 = \frac{4}{3}\pi(1,331) \approx \frac{4}{3} \cdot 3.14 \cdot 1,331 \approx 5572$$

The amount of air that fills the inside of the soccer ball is about 5,600 cubic centimeters.