

HW1-1)

The volume is given by  $L \times W \times H = 50 \text{ ft} \times 24 \text{ ft} \times 8 \text{ ft} = 9600 \text{ ft}^3$ .

To convert, multiply by 1 but in a particular form:

$$\begin{aligned} 9600 \text{ ft}^3 &\times \left( \frac{12 \text{ inches}}{1 \text{ ft}} \right) \times \left( \frac{12 \text{ inches}}{1 \text{ ft}} \right) \times \left( \frac{12 \text{ inches}}{1 \text{ ft}} \right) \\ &= 16,588,800 \text{ in}^3 \times \left( \frac{2.54 \text{ cm}}{1 \text{ in}} \right) \times \left( \frac{2.54 \text{ cm}}{1 \text{ in}} \right) \times \left( \frac{2.54 \text{ cm}}{1 \text{ in}} \right) = 271,841,727.3 \text{ cm}^3. \end{aligned}$$