

Chapter 3 Test Tuesday December 8th!

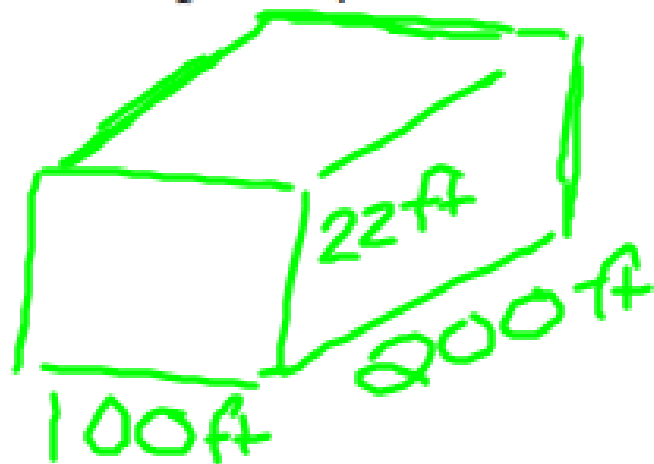
This one is going to be on the long side...you need to know what you're doing!

To get ready, work on #1-10 page 144-145, then the self test on 146-147

2. Air-conditioning installers frequently need to calculate the volume of spaces. An indoor soccer facility has the dimensions 200 feet by 100 feet, and it is 22 feet high.

a) What is the volume of air in the facility, in cubic feet?

b) Express your answer to the nearest cubic yard.



$$\begin{aligned} V &= l \cdot w \cdot h \\ &= (100)(200)(22) \\ &= 440\,000 \text{ ft}^3 \end{aligned}$$

$$\begin{aligned} &440\,000 \cancel{\text{ft}^3} \times \frac{1 \cancel{\text{yd}}}{3 \cancel{\text{ft}}} \times \frac{1 \cancel{\text{yd}}}{3 \cancel{\text{ft}}} \times \frac{1 \cancel{\text{yd}}}{3 \cancel{\text{ft}}} \\ &\frac{440\,000 \text{ ft}^3}{27 \text{ ft}^3} \times 1 \text{ yd}^3 = 16\,296.29 \text{ yd}^3 \end{aligned}$$

4. A recipe for lobster bisque on a U.S. web site includes 4 cups of cream.
- Convert 4 cups to fluid ounces.
 - Convert 4 cups to an approximate equivalent in litres.

$$\begin{array}{r} 1 \text{ cup} = 8 \text{ oz} \\ \times 4 \qquad \qquad \times 4 \end{array}$$

$$4 \text{ cups} = 32 \text{ oz}$$

$$1 \text{ qt} = 1 \text{ L}$$

$$4 \text{ cups} = 1 \text{ qt} = 1 \text{ L}$$

6. What is the capacity of the cooler?

- A the same as its volume
- B greater than its volume
- C less than its volume
- D it depends how full it is



- Capacity is the maximum amount
- Volume is the actual amount

Class work:
#1-10 page 144-145

Self test on 146-147