IMPERIAL AND METRIC MEASUREMENT - ASSIGNMENT #2

Use your conversion chart and a calculator to complete the questions below.

1) Calculate the cost before taxes to carpet a room that measures 12 ft by 17 ft. The carpet cost $24 per square yard. (There are 3ft in a yard , so there are 9ft in one sq yd)

2) Steve owns a restaurant in Arizona. He bought a 55 gallon drum of ketchup at a wholesale store. For the tables, he has $\frac{1}{2}$ pint squeeze bottles that he fills with ketchup from the drum. How many bottles can he fill from the drum of ketchup?

3) The cost of porcelain tile flooring is $\$51.25/m^2$. The Smith family is installing these tiles in the rectangular foyer of their home, which measures 15ft by 12 ft. Find the cost of flooring before tax?

4) The school gym floor needs to be resurfaced. Hardwood flooring costs $ 6 per square foot plus $ 2.50 per square foot for installation. The gym measures 180 ft by 220 ft.

A) How large is the gym floor in square feet?

B) How much woulod it cost to buy the hardwood flooring for the gym?

C) How much would it cost to install the hardwood flooring in the gym?

1) $\frac{12ft}{3ft} = \frac{x}{1yd}$

$x = 4 yds$

$17ft = 5.67 yds$

Total Yards = $12ft \times 17ft$

$4yds \times 5.67yds$

$= 22.67$ sq yds

Cost = $22.67 sq yds \times \frac{\$24}{sq yd}$

Cost = $\$544$

2) 1 gallon = 4 quarts
1 quart = 2 pints
4 quarts = 8 pints
1 gallon = 8 pints

$\frac{55 gallon}{\frac{1}{2} pint} = 110$ bottles

3) 15ft = 4.572 m
12ft = 3.6576 m

1ft = 0.3048 m

Area = $15ft \times 12ft = 4.572m \times 3.6576m$

$= 16.722 m^2$

Cost = $16.722 m^2 \times \$51.25/m^2 = \$857.03$

4) A) Total Area = $180ft \times 220ft = 39600 ft^2$

B) To Buy = 39600 sq ft $\times$ 6 = ~~$6600~~

C) To Install = $39600 sq ft / \$2.50 = \$237600$

B) To Buy $\Rightarrow$ $39600 sqft \times 6 = \$237600$

C) To Install $\Rightarrow$ $39600 sqft \times 2.5 = \$99000$