

A gallon of paint can cover 300 sq. feet.

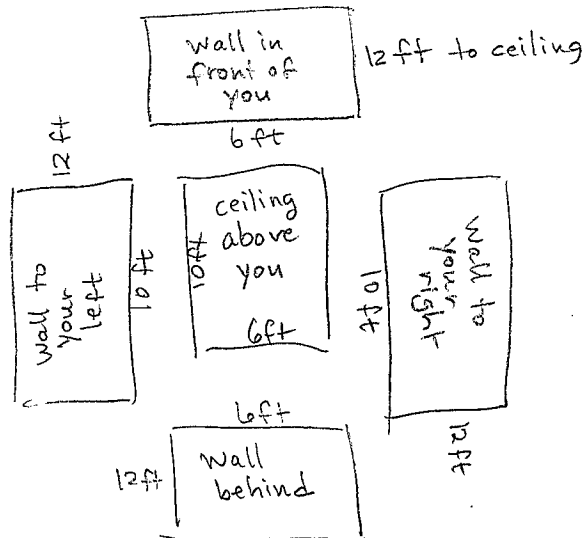
2.4-17

Find the number of gallons of paint

for 2 coats of paint on all walls and ceiling

of room that measures 6 ft by 10 ft with a 12-foot ceiling.

Imagine you are standing inside the room:



Need to paint all five surfaces. twice.

1) Find area of each wall Rectangle $\Rightarrow L \cdot W$

$$\text{front } 6 \times 12 = 72$$

$$\text{back } 6 \times 12 = 72$$

$$\text{left } 10 \times 12 = 120$$

$$\text{right } 10 \times 12 = 120$$

$$\text{ceiling } 6 \times 10 = 60$$

444 (area of 5 surfaces).
sq.ft.

2) Paint each twice $\Rightarrow \text{area} \times 2 \Rightarrow 444 \times 2 \Rightarrow \underline{\underline{888 \text{ sq. ft.}}}$

3) 1 can paint per 300 sq. ft.

$$\left(\frac{1 \text{ can paint}}{300 \text{ sq. feet}} \right) \cdot \frac{(888 \text{ sq. ft.})}{1} = \frac{888}{300} = 2.96 \text{ cans of paint.}$$

4) Buy 3 cans of paint