

Learner 2: PC 1.1 and 1.2

Learner 2: Meets Requirements
Intended for teacher use only

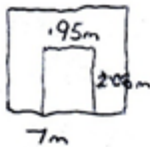


Some of the rooms at your college need painting. You and your friends have offered to help the caretaker by measuring up some of the rooms and calculating how much paint is needed for two coats. You are told that 1 Litre of paint covers about 12 square metres.

- ① Choose a room to measure. How much paint will be needed for this room?

Record the measurements and show your working.

②



$$\begin{aligned} \text{Walls } 7 \times 2.4 \times 4 &= 67.2 \text{ m}^2 \\ \text{Window } 3 \times 2 &= 6 \text{ m}^2 \\ \text{Door } 0.95 \times 2.08 &= 1.976 \text{ m}^2 \end{aligned} \left. \vphantom{\begin{aligned} \text{Walls } 7 \times 2.4 \times 4 \\ \text{Window } 3 \times 2 \\ \text{Door } 0.95 \times 2.08 \end{aligned}} \right\} 7.976 \text{ m}^2$$

③ Total area to paint = $67.2 \text{ m}^2 - 7.976 \text{ m}^2$
 $= 59.224 = 60 \text{ m}^2$

$$60 \text{ m}^2 \times 2 = 120 \text{ m}^2 \text{ (for 2 coats)}$$

$$120 \div 12 = 10$$

④ So 10 litres paint needed

(Check: $7 \times 2 = 14 \times 4 = 56 \times 2 = 112$)

⑤ $12 \times 10 = 120$

⑥ I observed the student taking measurements. The measurements were accurate.

■■■■ tiler 7/6/14