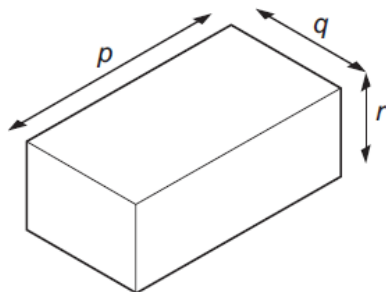


1. Nov/2022/Paper_11/No.4

The diagram shows the dimensions of a solid rectangular block of metal of mass m .

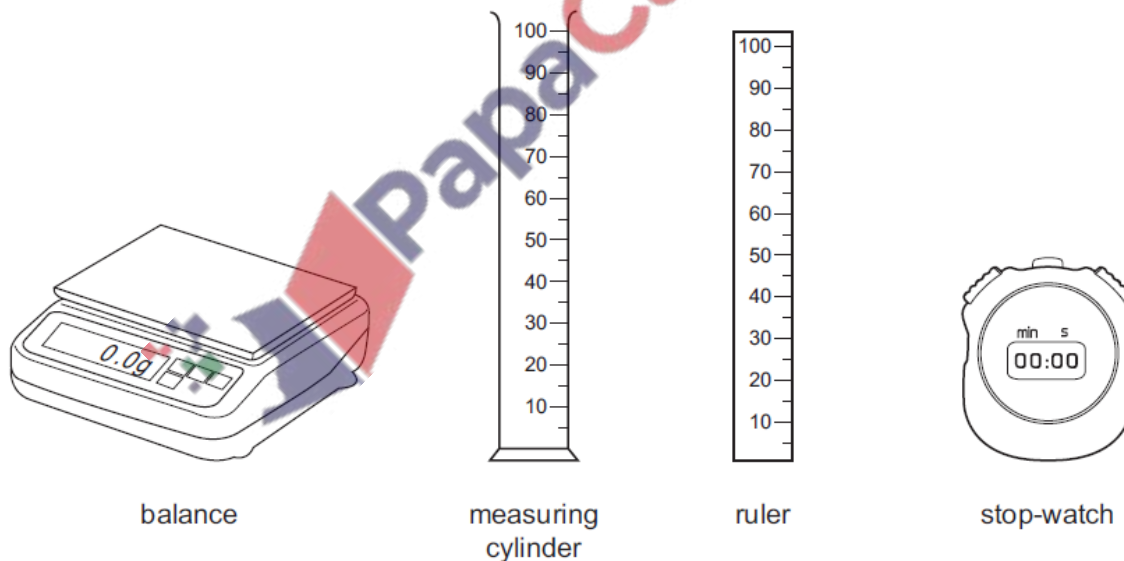


Which expression is used to calculate the density of the metal?

- A $\frac{m}{(p \times q)}$
- B $\frac{m}{(p \times q \times r)}$
- C $m \times p \times q$
- D $m \times p \times q \times r$

2. Nov/2022/Paper_12,13,22,23/No.4

The diagram shows four pieces of laboratory apparatus.

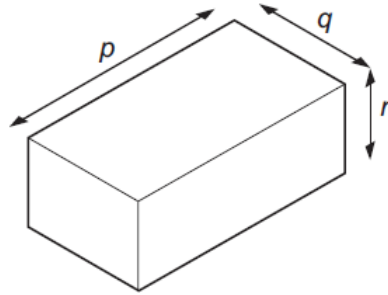


Which pieces of apparatus are used to find the density of a liquid?

- A balance and stop-watch
- B balance and measuring cylinder
- C measuring cylinder and ruler
- D stop-watch and ruler

3. Nov/2022/Paper_21/No.4

The diagram shows the dimensions of a solid rectangular block of metal of mass m .



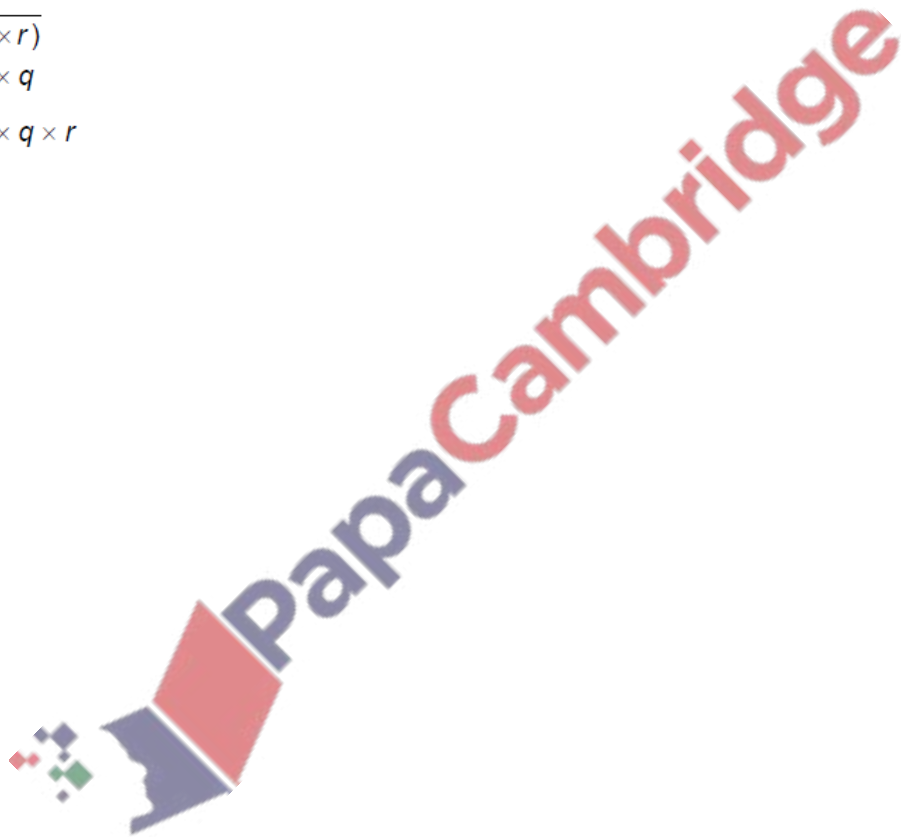
Which expression is used to calculate the density of the metal?

A $\frac{m}{(p \times q)}$

B $\frac{m}{(p \times q \times r)}$

C $m \times p \times q$

D $m \times p \times q \times r$



A builder buys some tiles to repair a floor. He checks that the new tiles are the same size as the tiles on the floor.

The dimensions of the tiles on the floor are $25\text{ cm} \times 20\text{ cm} \times 0.30\text{ cm}$.

The new tiles are shown in Fig. 2.1.

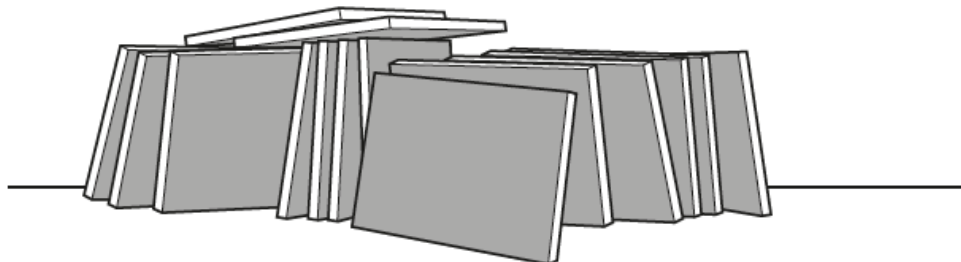


Fig. 2.1

(a) (i) State the name of a suitable instrument for measuring the length and width of each tile.

..... [1]

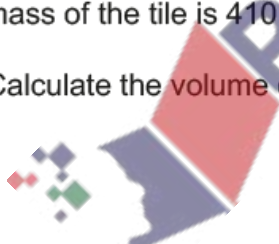
(ii) Describe how to determine the average thickness of **one** new tile.

.....
.....
..... [3]

(b) The dimensions of a tile are $25\text{ cm} \times 20\text{ cm} \times 0.30\text{ cm}$.

The mass of the tile is 410g.

(i) Calculate the **volume** of the tile.



volume = cm^3 [1]

(ii) Calculate the density of the tile. Include the unit in your answer.

density = unit [4]

(iii) Calculate the weight of the tile.

weight = N [3]

[Total: 12]

