

36) Find $\frac{1}{4}$ of $\frac{5}{2}$ of 600

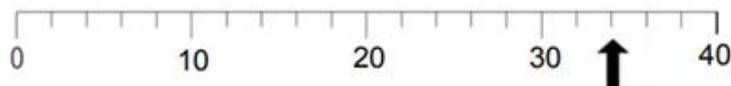
- A. 150 B. 300 C. 375 D. 750

Answer:

$$\begin{aligned} \frac{1}{4} \text{ of } \frac{5}{2} \text{ of } 600 &= \frac{1}{4} \times \left(\frac{5}{2} \times 600 \right) && \text{Write in numerical form} \\ &= \frac{1}{4} [(600 \div 2) \times 5] && \text{Divide and multiply} \\ &= \frac{1}{4} [300 \times 5] && \text{Simplify} \\ &= \frac{1}{4} [1500] && \text{Multiply} \\ &= 1500 \div 4 && \text{Divide} \\ &= 375 && \text{Simplify} \end{aligned}$$

$\frac{1}{4} \text{ of } \frac{5}{2} \text{ of } 600 \text{ is } 375$

12) What number is the arrow pointing to on this scale?



- A. 30 B. 24 C. 38 D. 34

Answer:

From 0 to 10 there are 5 cuts of equal distance.

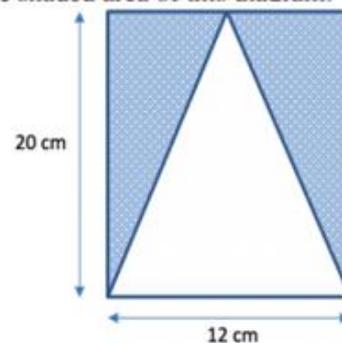
$$\begin{aligned} \text{Length of 5 cuts} &= 10 \\ \text{Length of 1 cut} &= \frac{10}{5} && \text{Divide both sides by 5} \\ &= 2 \end{aligned}$$

Since the arrow is pointing to a number which is between 30 and 40 and it is two cuts away from 30, we get:

$$\text{The number} = 30 + 2 + 2 = 30 + 4 = 34$$

The arrow is pointing to 34 on the scale

19) Calculate the shaded area of this diagram.



- A. 100 cm^2 B. 110 cm^2 C. 120 cm^2 D. 140 cm^2

Answer:

Length of the rectangle = 20 cm

Given

Width of the rectangle = 12 cm

Given

Area of rectangle = Length \times Width

Write the formula

$$= 20 \text{ cm} \times 12 \text{ cm}$$

Substitute in the values

$$= 240 \text{ cm}^2$$

Simplify

Base of the triangle = 12 cm

Given

Height of the triangle = 20 cm

Given

$$\text{Area of triangle} = \frac{1}{2} \times \text{base} \times \text{height}$$

Write the formula

$$= \frac{1}{2} \times 12 \text{ cm} \times 20 \text{ cm}$$

Substitute in the values

$$= \frac{240 \text{ cm}^2}{2}$$

Multiply

$$= 120 \text{ cm}^2$$

Simplify

Area of shaded region = Area of rectangle - Area of triangle

Given

$$= 240 \text{ cm}^2 - 120 \text{ cm}^2$$

Substitute in the values

$$= 120 \text{ cm}^2$$

Simplify

Area of the shaded region is 120 cm^2