



Mensuration-I area of a trapezium and a polygon Ex 20.2 Q4

Answer :

Given:

Sum of the parallel sides of a trapezium = 60 cm

Area of the trapezium = 600 cm^2

Area of trapezium = $\frac{1}{2} \times (\text{Sum of the parallel sides}) \times (\text{Height})$

On putting the values :

$$600 = \frac{1}{2} \times 60 \times (\text{Height})$$

$$600 = 30 \times (\text{Height})$$

$$\text{Height} = \frac{600}{30} = 20 \text{ cm}$$

Mensuration-I area of a trapezium and a polygon Ex 20.2 Q5

Answer :

Given:

Area of the trapezium = 65 cm^2

The lengths of the opposite parallel sides are 13 cm and 26 cm.

Area of trapezium = $\frac{1}{2} \times (\text{Sum of parallel bases}) \times (\text{Altitude})$

On putting the values :

$$65 = \frac{1}{2} \times (13 + 26) \times (\text{Altitude})$$

$$65 \times 2 = 39 \times \text{Altitude}$$

$$\text{Altitude} = \frac{130}{39} = \frac{10}{3} \text{ cm}$$

Mensuration-I area of a trapezium and a polygon Ex 20.2 Q6

Answer :

Given:

Area of the trapezium = 4.2 m^2

$$\text{Height} = 280 \text{ cm} = \frac{280}{100} \text{ m} = 2.8 \text{ m}$$

Area of trapezium = $\frac{1}{2} \times (\text{Sum of the parallel bases}) \times (\text{Height})$

$$4.2 = \frac{1}{2} \times (\text{Sum of the parallel bases}) \times 2.8$$

$$4.2 \times 2 = (\text{Sum of the parallel bases}) \times 2.8$$

$$\text{Sum of the parallel bases} = \frac{8.4}{2.8} = 3 \text{ m}$$

***** END *****