



Mensuration-I area of a trapezium and a polygon Ex 20.2 Q1

**Answer :**

(i)

Given:

Bases:

$$12 \text{ dm} = \frac{12}{10} \text{ m} = 1.2 \text{ m}$$

$$\text{And, } 20 \text{ dm} = \frac{20}{10} \text{ m} = 2 \text{ m}$$

$$\text{Altitude} = 10 \text{ dm} = \frac{10}{10} \text{ m} = 1 \text{ m}$$

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

$$= \frac{1}{2} \times (1.2 + 2) \text{ m} \times (1) \text{ m}$$

$$= 1.6 \times \text{m} \times \text{m}$$

$$= 1.6 \text{ m}^2$$

(ii)

Given:

Bases:

$$28 \text{ cm} = \frac{28}{100} \text{ m} = 0.28 \text{ m}$$

$$\text{And, } 3 \text{ dm} = \frac{3}{10} \text{ m} = 0.3 \text{ m}$$

$$\text{Altitude} = 25 \text{ cm} = \frac{25}{100} \text{ m} = 0.25 \text{ m}$$

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

$$= \frac{1}{2} \times (0.28 + 0.3) \text{ m} \times (0.25) \text{ m}$$

$$= 0.0725 \text{ m}^2$$

Mensuration-I area of a trapezium and a polygon Ex 20.2 Q2

**Answer :**

Given:

Lengths of the parallel sides are 15 cm and 9 cm.

Height=8 cm

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

$$= \frac{1}{2} \times (15 + 9) \times (8)$$

$$= 96 \text{ cm}^2$$

Mensuration-I area of a trapezium and a polygon Ex 20.2 Q3

**Answer :**

Given:

Lengths of the parallel sides are 16 dm and 22 dm.

And, height between the parallel sides is 12 dm.

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

$$= \frac{1}{2} \times (16 + 22) \times (12)$$

$$= 228 \text{ dm}^2$$

$$= 228 \times \text{dm} \times \text{dm}$$

$$= 228 \times \frac{1}{10} \text{ m} \times \frac{1}{10} \text{ m}$$

$$= 2.28 \text{ m}^2$$

\*\*\*\*\* END \*\*\*\*\*