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EVERWIN VIDHYASHRAM

Marks: 20

STD: VIII

PA4 - MATHS

Time: 30 min

I. Answer in one word:

- 1.  $\frac{\pi r^2}{2}$  sq. units
- 2. Frequency
- 3. Raw data

II. Solve the following questions:

4. Given:

Area of a trapezium = 480m<sup>2</sup>  
 Height = 15m  
 One parallel side = 20m

To find: The other parallel side:

Area of a trapezium =  $\frac{1}{2} h (a + b)$  sq. units

480 =  $\frac{1}{2} 15 (20 + b)$

$480 \times 2 = 15 (20 + b)$

960 = 300 + 15b

960 - 300 = 15b

660 = 15b

b =  $\frac{660}{15}$  b = 44m

∴ The length of the other parallel side = 44m.

5. To find: Area of the garden.

Length = 22 - 10  
 = 12m

Diameter = 10m

Radius =  $\frac{10}{2} = 5m$

Area of the garden = Area of the rectangle + 2(Area of the semi-circular)

=  $\ell \times b + 2 \left( \frac{\pi r^2}{2} \right)$

=  $\ell \times b + \pi r^2$

=  $12 \times 10 + \frac{22}{7} \times 5 \times 5$

=  $120 + \frac{550}{7}$

= 120 + 78.57 = 198.57m<sup>2</sup>

∴ Area of the garden = 198.57m<sup>2</sup>

6. Given:

d<sub>1</sub> = 16cm d<sub>2</sub> = 30cm

Area of Rhombus =  $\frac{1}{2} \times d_1 \times d_2$  sq. units

=  $\frac{1}{2} \times 16 \times 30 = 240\text{cm}^2$

∴ Area of the Rhombus = 240cm<sup>2</sup>

III. Graph:

Student's answer