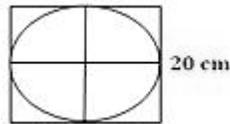


Board – ICSE

Class – 7<sup>th</sup>

Topic – Mensuration

6. If it costs \$1600 to fence a rectangular park of length 20 m at the rate of \$25 per m<sup>2</sup>, find the breadth of the park and its perimeter. Also, find the area of the field.
- How many rectangles can be drawn with 38 cm as perimeter? Also, find the dimensions of the rectangle whose area will be maximum.
- The length of a rectangular wooden board is thrice its width. If the width of the board is 120 cm, find the cost of framing it at the rate of \$5 for 20 cm.
- A square metallic frame has a perimeter 208 cm. It is bent in the shape of a circle. Find the area of the circle.
- From a circular sheet of radius 18 cm, two circles of radii 4.5 cm and a rectangle of length 4 cm and breadth 1 cm are removed; find the area of the remaining sheet.
- Find the area of a circle inscribed in a square of side 20 cm.



- If it costs \$2400 to fence a square field at the rate of \$6 per m, find the length of the side and the area of the field.  
Perimeter = (Total cost)/(Cost per m<sup>2</sup>)
- A wire in the shape of rectangle whose width is 22 cm is bent to form a square of side 31 cm. Find the length of the rectangle. Also, find which shape encloses more area.
- The area of a square field is 81 hectares. Find the cost of fencing the field with a wire at the rate of \$2.25 per m.
- A square lawn is surrounded by a path 2 m wide. If the area of the path is 240 m<sup>2</sup>, find the area of the lawn.
- A path 5 m wide runs along inside a rectangular field. The length of the rectangular field is three times the breadth of the field. If the area of the path is 500 m<sup>2</sup>, then find the length and breadth of the field.
- A strip of width 3 cm is cut out all round from a sheet of paper with dimensions 30 cm × 20 cm. Find the area of the strip cut out and the area of the remaining sheet.

13. Find the area of a triangle having .....

- (a) base = 18 cm    height = 12 cm
- (b) base = 6.5 m    height = 5 cm
- (c) base = 7.2 m    height = 7 dm
- (d) base = 10.5 m    height = 8 mm

14. Find the height of a triangle whose .....

- (a) Area =  $420 \text{ cm}^2$     base = 60 cm
- (b) Area =  $1500 \text{ mm}^2$     base = 7.5 cm
- (c) Area =  $64 \text{ dm}^2$     base = 1.6 m

15. Find the base of a triangle whose .....

- (a) Area =  $300 \text{ cm}^2$     height = 7.5 cm
- (b) Area =  $3.6 \text{ dm}^2$     height = 90 cm
- (c) Area =  $3.6 \text{ m}^2$     height = 1.8 m

## ANSWER

1.  $b = 12 \text{ m}$ ,  $P = 64 \text{ m}$ ,  $A = 240 \text{ m}^2$

2. 9 if  $l, b \in \mathbb{W}$  max area  $90 \text{ cm}^2$ ,  $l, b = 10, 9$

3. \$240

4.  $3441 \frac{5}{11} \text{ cm}^2$

5.  $887 \text{ cm}^2$

6.  $314.2 \text{ cm}^2$

7. 100 m,  $10000 \text{ m}^2$

8.  $l = 40 \text{ cm}$ , square

9. \$2700

10.  $210.25 \text{ m}^2$

11.  $L = 45 \text{ m}$ ,  $b = 15 \text{ m}$

12.  $264 \text{ cm}^2$ ,  $336 \text{ cm}^2$

13. (a)  $108 \text{ cm}^2$

(b)  $0.1625 \text{ m}^2$

(c)  $2.52 \text{ m}^2$

(d)  $0.0420 \text{ m}^2$

14. (a) 14 cm

(b) 40 mm

(c) 8 dm

15. (a) 80 cm

(b) 0.8 dm

(c) 4 m