Instructions for students: The notes provided must be copied to the Maths copy and then do the homework in the same copy.

Class 7-Mathematics

Chapter 16

PERIMETER AND AREA

Square:

Perimeter   =   4a

Area   =   a²

Where a = length of a side of the square.

Rectangle:

Perimeter   =   2(l+b)

Area   =   l×b

Where _l_ and _b_ are length and breadth of the rectangle.

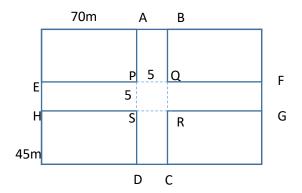**Units of area are mm², cm², m² , km² and hectare.**

Exercise 16.1

12. Let rectangle ABCD and rectangle EFGH

be the cross roads. Square PQRS is

common to both the roads.

Dimensions of ABCD = 45m×5m
Dimensions of EFGH = 70m×5m
Area of the roads

= Area of Rectangle ABCD+ Area
of rectangle EFGH – Area of
square PQRS

= (70×5)+(45×5) – (5×5)

= 350+225 – 25

= 550m²

Cost of constructing the roads

= 550×105

=₹57,750

14. Dimensions of the room   =   6.5m× 5m

                                       =   650cm×500cm

Area of the room   = $650×500$ cm^2

Side of one tile   =   25 cm

Square of one tile   = $25×25$ cm^2

Number of tiles required = $\dfrac{Area\ of\ room}{Area\ of\ one\ tile}$

                                       = $\dfrac{\cancel{650}26×\cancel{500}\,20}{\cancel{25}×\cancel{25}}$ = 26×20 = 520

Cost of flooring   =   520×₹9.40=₹4,888

16. Cost of fencing   =   ₹4680

Perimeter of the plot   = $\dfrac{₹4680}{18}$ = 260 m

width of the plot   =   50m

2(l+50)   =   260

l+50   = $\dfrac{260}{2}$ = 130

l   =   130 – 50 = 80 m

i)   Length of the plot   =   80 m

ii)   Area of the plot   =   80×50   = 4000 m^2

Cost of levelling   =   4000×7.6 = ₹30,400

Home work: Solve Exercise 16.1 Questions 1, 2, 6, 9, 11, 13.

Practise Exercise 16.1 all problems.