

## Chapter 13 (Direct and Inverse Proportion)

1) The cost of 5 mtr of a particular quality of cloth is Rs 210. Find the cost of 4 mtr of cloth of same type.

2) An electric pole, 14 mtr. high, casts a shadow of 10 mtr. Find the height of a tree that casts a shadow of 15 mtr under similar condition.

3) If the weight of 12 sheets of thick paper is 40 gram. How many sheets of the same paper would weigh  $2\frac{1}{2}$  kilogram.

4) A train is moving at a uniform speed of 75 km/hr.  
 (i) How far will it travel in 20 minutes?  
 (ii) Find the time required to cover a distance of 250 km.

5) The scale of a map is given as 1:3000000. Two cities are 4cm apart on the map. Find the actual distance between them.

6) 6 pipes are required to fill a tank in 1 hour 20 min. How long will it take if only 5 pipes of the same type are used?

7) There are 100 students in a hostel. Food provision for them is for 20 days. How long will these provisions last, if 25 more students join the group?

8) If 15 workers can build a wall in 48 hours, how many workers will be required to do the same work in 30 hours.

10) If a car runs 57.5 km in 5 litres of petrol. How much distance will it cover in 11 litres of petrol?

11) If  $x$  and  $y$  vary in Inverse proportion, find 'a'

$x$	90	"a"
$y$	10	15

12) A school has 9 periods a day each of 50 minutes duration. How many periods will there be if the duration of every period is reduced by 5 minutes?

13) If 25 mtr of cloth costs Rs. 337.50 then what will the length of the cloth bought for Rs. 810?

14) If  $x$  and  $y$  vary in inverse proportion, find  $a$  &  $b$ .

$x$	$a$	6	1.5
$y$	8	16	$b$

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