

CHAPTER 13

Direct & inverse variation

Q1. In which of the following tables, a and b vary directly. Also find the constant of variation if a and b are in direct variation.

A	4	7	21	28
B	12	21	63	84

A	2.5	5	7.5	10	15
B	10	20	30	40	60

A	1	2	3	4	5
B	2	1	6	3	$\frac{2}{5}$

Q2. if x and y vary directly, find the missing entries in the following table.

x	2.5	21
y	5	8	24

x	...	9	15
y	3	4.5	7.5	13.25

Q3. A car travels 432 km on 48 liters of petrol. How far would it travel on 20 liters of petrol?

Q4. If 40 meter of a cloth costs Rs.1940, how many meters can be brought for Rs.727.5?

Q5. A private taxi charges a fare of Rs. 260 for a journey of 200km. how much would it travel for Rs.279.50?

Q6. Reema types 540 words during half an hour. How many words would she type in 6 minutes?

Q7. The amount of extension in an elastic spring varies directly as the weight hung on it. If a weight of 150 gm produces an extension of 2.9 cm, then what weight would produce an extension of 17.4 cm?

Q8. In which of the following tables a & b vary inversely.

1)

A	8	16	32	256
B	32	16	8	1

2)

A	9	18	2	12
B	8	4	30	6

3)

A	2	16	8	4
B	40	5	10	20

Q9. If a and b vary inversely, fill in the blanks.

1)

a	8	2	...	5	1
b	10	...	20	...	80

2)

a	16	32	8	128
b	4	0.5

Q10. If 52 men can do a piece of work in 35 days, in how many days 28 men will do it?

Q11. If 56 men can do a piece of work in 42 days. How many men will do it in 14 days?

Q12. Shalu cycle to her school at an average speed of 12km/hr. it takes her 20 minutes to reach the school. If she wants to reach her school in 15 minutes. What should be her average speed?

Q13. 1000 soldiers in a fort had enough food for 20days. But some soldiers were transferred to another fort and the food lasted for 25 days. How many soldiers were transferred?

Q14. 120 men had food provision for 200 days. After 5 days 30 men died due to an epidemic. How long will the remaining food last?

Q15. If x and y vary inversely as each other, and $x = 10$ when $y = 6$. Find y when $x = 15$.