

DIRECT AND INVERSE PROPORTION

EXTRA QUESTIONS

1. 10 meters of cloth cost Rs 1000. What will 4 meters cost?
 - a) Rs 400
 - b) Rs 800
 - c) Rs 200
 - d) Rs 100
2. 15 books weigh 6 kg. What will 6 books weigh?
 - a) 1.2 kg
 - b) 2.4 kg
 - c) 3.8 kg
 - d) 3 kg
3. A horse eats 18 kg of corn in 12 days? How much does he eat in 9 days?
 - a) 11.5 kg
 - b) 12.5 kg
 - c) 13.5 kg
 - d) 14.5 kg
4. 8 g of sandal wood cost Rs 40. What will 10 g cost?
 - a) Rs 30
 - b) Rs 36
 - c) Rs 48
 - d) Rs 50
5. 20 trucks can hold 150 metric tons. How much will 12 trucks hold?
 - a) 80 metric tons
 - b) 90 metric tons
 - c) 60 metric tons
 - d) 40 metric tons
6. If 'x' and 'y' are in a direct proportion then which of the following is correct?
 - a) $x - y = \text{constant}$
 - b) $x + y = \text{constant}$
 - c) $x \times y = \text{constant}$
 - d) $\frac{x}{y} = \text{constant}$
7. If 'x' and 'y' are in an inverse variation then which of the following is correct?
 - a) $x - y = \text{constant}$
 - b) $x + y = \text{constant}$
 - c) $x \times y = \text{constant}$
 - d) $\frac{x}{y} = \text{constant}$
8. If 'A' can finish a work in 'n' days then part of work finished in 1 day is:
 - a) 1-n
 - b) $\frac{1}{n}$
 - c) n-1
 - d) none of these
9. If amount of work completed by 'A' in one day is $\frac{1}{n}$ then the whole work will be finished by 'A' is:
 - a) n days

- b) 1 – n days
 c) n – 1 days
 d) none of these.
10. "If speed is more than time to cover a fixed distance would be less". This is a case of:
 a) inverse variation
 b) direct variation
 c) inverse and direct variation
 d) none of the above.
11. If x and y vary inversely. Then using the following table?
- | | |
|---|----|
| x | 5 |
| y | 30 |
- a) 10
 b) 40
 c) 15
 d) 20
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. A farmer has enough food to feed 30 animals in his cattle-fret for 4 days, How long would the food last if there were 10 less animals in his farm?
14. A train travels 112 km in 1 hour 30 minutes with a certain speed. How many kilometres it will travel in 4 hours 45 minutes with the same speed?
15. The volume of a gas V varies inversely as the pressure P for a given mass of the gas. Fill in the blank spaces in the following table:
- | | | | | | | | |
|---------------------------|---|----|---------------|---|-----|---------------|-----|
| Volume in cm ³ | - | 48 | 60 | - | 200 | - | 200 |
| Pressure in atmosphere | 2 | - | $\frac{3}{2}$ | 1 | - | $\frac{1}{2}$ | - |
16. A 5m 60cm high vertical pole casts a shadow which is 3m 20cm long. Find at the same time
 i) length of the shadow cast by a different pole which is 10m 50cm high.
 ii) height of a pole which casts a shadow 5m long.
17. A contractor undertook a contract to complete a part of a stadium in 9 months with a team of 560 persons. Later on, it was required to complete the job in 5 months. How many extra persons should be employed to complete the work?