

**MATHEMATICS**  
**CLASS VIII**  
**FA-3**  
**Assignment No. 4**  
**Ch 10 Direct and Inverse Variations**

1. Tick the correct alternative :
  - i. A car travels 108 km in 12 litres of petrol. In 10 litres of petrol, it will travel a distance of
    - a) 90 km
    - b) 518.4 km
    - c)  $\frac{5}{10}$  km
    - d)  $\frac{10}{5}$  km
  - ii. If 4 men can complete a work in a week, how many men will complete the same work in two weeks?
    - a) 2
    - b) 4
    - c) 8
    - d) 14
  - iii. Cost of notebooks is Rs 90 per dozen. Cost of 18 notebooks is
    - a) Rs 180
    - b) Rs 120
    - c) Rs 45
    - d) Rs 135
  - iv. 36 men can complete a piece of work in 20 days. In how many days will the work be done if the number of men is reduced to 12
    - a) 40 days
    - b) 6.6. days
    - c) 60 days
    - d) 8 days
2. If 30 metres of cloth can be bought for Rs 810, how many metres of cloth can be bought for Rs 1215?
3. A car can reach a certain place in 12 hours at the speed of 60 km/hr. By how much should the speed be increased so that it completes the journey in 10 hours?
4. 40 persons take 30 days to complete a work. How long will it take to complete the work, if 20 more persons join them?
5. A fort has enough food for 800 soldiers for 25 days. If a reinforcement of 200 soldiers joins them now, how long will the food last?
6. In a library, 126 copies of a certain book require a shelf length of 3.78 m. How many copies of the same book would occupy shelf length of 4.8 m?
7. Asha can type a given assignment in 45 minutes at a speed of 50 words per minute. Her friend Sneha can type the same assignment in half an hour. What would be Sneha's typing speed?
8. Karan cycles at a speed of 40 km/hour and reaches school in 12 minutes. How long will Kunal take to reach school if he cycles at 30 km/hour?
9. Sita can finish typing a 100 page document in 9 hours, Mita in 6 hours and Rita in 12 hours. How long will they take to type a 100 page document if they work together?
10. A cistern can be filled by one tap in 8 hours and by another in 4 hours. How long will it take to fill the cistern if both taps are opened together?
11. A and B can do a piece of work in 18 days; B and C in 24 days and A and C in 36 days. In what time can they do it, all working together?
12. Anil can do a piece of work in 5 days and Ankur in 4 days. How long will they take to do the same work, if they work together?
13. If the second class railway fare for 80 km is Rs 15, find the fare for a journey of 342 km.
14. The daily consumption of rice in a hostel with 120 residents is 12 kg. Find the consumption of rice if the number of residents in the hostel increased to 170.

15. In a school, 9 periods of 40 minutes each are reserved in a week for Mathematics for class VIII. If the length of period is reduced to 30 minutes, then how many periods in a week be reserved for Mathematics?
16. Reading 15 pages of a book every day, a girl can finish a book in 35 days. How many pages per day she must read if she wants to finish the book in 25 days.
17. In a boarding school of 80 boys, there was food provision for 30 days. The boys helped 20 more orphan boys of the locality to share the provision.
  - i. How long did the food provision last?
  - ii. Sharing and caring are noble practice. Cite one example when you shared something with any needy person.