EduSahara™ Assignment

Name : Word Problems on Linear Equations

Chapter : Linear Equations and Simultaneous Linear Equations

Grade : ICSE Grade IX

1. The speed of a motor boat is 32.76 m/sec and the speed of a stream is 10.85 m/sec. A & B are two location adjacent to a stream. If it takes 190.28 sec to go from point A to B and come back, What is the distance between A and B?

(i) 2774.90 m (ii) 2772.90 m (iii) 2776.90 m (iv) 2773.90 m (v) 2775.90 m

2. A student walks from his house to school at 3.01 kmph and arrives 26.70 min late. The next day he walks at 6.24 kmph and reaches the school 0.20 min before time. What is the distance from his house to school?

(i) 2.61 km (ii) 3.61 km (iii) 1.61 km (iv) 4.61 km (v) 0.61 km

3. A student walks from his house to school at 2.97 kmph and arrives 35.50 min late. The next day he walks at 9.97 kmph and reaches the school 5.40 min before time. At what speed must he travel to reach the school on time?

(i) 7.61 kmph (ii) 8.61 kmph (iii) 6.61 kmph (iv) 5.61 kmph (v) 9.61 kmph

4. A train crosses a telegraph post in 13.19 sec and a bridge 1046.62 m long in 44.62 sec. What is the length of the train?

(i) 439.23 m (ii) 437.23 m (iii) 440.23 m (iv) 441.23 m (v) 438.23 m

5. A train crosses a telegraph post in 13.90 sec and a bridge 323.06 m long in 31.25 sec. What is the speed of the train?

(i) 20.62 m/sec (ii) 17.62 m/sec (iii) 18.62 m/sec (iv) 16.62 m/sec (v) 19.62 m/sec

6. A can do a work in 3 days. With the help of B, A can do the same work in $1\frac{5}{7}$ days. In how many days can B alone do the work?

(i) 1 day (ii) 7 days (iii) 3 days (iv) 5 days (v) 4 days

7. Due to a leak at the bottom, pipe Y takes 6 hr to fill the tank.
The leak alone can empty the full tank in 12 hr.
In what time can pipe Y alone fill the tank when the leak is closed?

(i) 5 hr (ii) 3 hr (iii) 7 hr (iv) 2 hr (v) 4 hr

8. A and B together can do a piece of work in $3\frac{3}{4}$ days.
They work together for 1 day and then A leaves.
B completes the remaining work in $4\frac{2}{5}$ days.
In how much time can each of them do the work seperately?

(i) (10 days, 7 days) (ii) (10 days, 5 days) (iii) (10 days, 6 days) (iv) (11 days, 6 days) (v) (9 days, 6 days)

9. A can do $\frac{7}{15}$ of a work in $2\frac{1}{3}$ hr.
He works for 2 hr when B joins him.
They work together and complete the work in $1\frac{3}{4}$ hr.
In how much time, B alone can do the work?
(i) 6 hr (ii) 8 hr (iii) 7 hr (iv) 9 hr (v) 4 hr

10. Find the fourth proportional of 8, 2 and 32
(i) 32 (ii) 5 (iii) 11 (iv) 2 (v) 8

11. The work done by (6x + 1) men in (x + 1) days and work done by (x + 1) men in (3x + 2) days is in the ratio of 25 : 14 . Find the value of x
(i) 1 (ii) 3 (iii) 7 (iv) 4 (v) 5

12. In an examination, the ratio of passes to failures was 4 : 3.
Had 70 less appeared and 15 less passed, the ratio of passes to failures would have been 9 : 5.
How many students appeared for the examination?
(i) 415 (ii) 420 (iii) 430 (iv) 410 (v) 425

13. In a company, the number of engineers to managers is in the ratio 3 : 2 . After a year, when 20 engineers and 10 managers left, the ratio between engineers to managers is 16 : 11 . Find the number of engineers and managers at the beginning?
(i) 290 (ii) 320 (iii) 310 (iv) 300 (v) 280

14. What number must be added to each term of the ratio 48 : 64 to make it 18 : 19 ?
(i) 242 (ii) 240 (iii) 241 (iv) 237 (v) 239

15. Two numbers are in the ratio 16 : 17. If 16 is added to each number, the ratio becomes 128 : 135. Find the numbers.
(i) 128 : 136 (ii) 144 : 153 (iii) 112 : 119 (iv) 96 : 102 (v) 80 : 85

16. The ratio of two numbers is
2 : 3
and their LCM is 90. Find the numbers.
(i) 34 : 51 (ii) 30 : 45 (iii) 28 : 42 (iv) 26 : 39 (v) 32 : 48

17. Find the number which bears the same ratio to $\frac{1}{6}$ that $\frac{2}{3}$ does to $\frac{19}{108}$
(i) $\frac{12}{17}$ (ii) $\frac{12}{19}$ (iii) $\frac{10}{19}$ (iv) $\frac{4}{7}$ (v) $\frac{14}{19}$

18. The ages of A and B are in the ratio 6 : 5. 8 years hence, their ages will be in the ratio 7 : 6. Find their present ages.
(i) 60 : 50 (ii) 36 : 30 (iii) 42 : 35 (iv) 48 : 40

19. The ages of A and B are in the ratio 2 : 1. 6 years ago, their ages were in the ratio 9 : 4. Find their present ages.
(i) 56 : 28 (ii) 60 : 30 (iii) 58 : 29 (iv) 64 : 32

20. In a mixture of 288 litres, the ratio of milk and water is 7 : 17. How much water must be added to this mixture to make the ratio 21 : 65?

(i) 57 (ii) 55 (iii) 58 (iv) 56 (v) 53

21. The ratio of males to females in a committee of 72 members is 3 : 1. How many more ladies should be added to the committee so that the ratio of males to females is 9 : 11?

(i) 46 (ii) 47 (iii) 48 (iv) 49 (v) 51

22. A motor boat can move at a speed of 6.00 m/sec in still water. If it goes upstream for 2331.85 sec, it travels a distance of 3661.00 m. What is the speed of the stream?

(i) 5.43 m/sec (ii) 3.43 m/sec (iii) 4.43 m/sec (iv) 2.43 m/sec (v) 6.43 m/sec

23. A motor boat can move at a speed of 8.83 m/sec in still water. If it goes downstream for 169.64 sec, it travels a distance of 2867.00 m. What is the speed of the stream?

(i) 6.07 m/sec (ii) 7.07 m/sec (iii) 10.07 m/sec (iv) 8.07 m/sec (v) 9.07 m/sec

Assignment Key

1) (i)	2) (i)	3) (i)	4) (i)	5) (iii)	6) (v)
7) (v)	8) (iii)	9) (iii)	10) (v)	11) (iv)	12) (ii)
13) (iv)	14) (ii)	15) (iii)	16) (ii)	17) (ii)	18) (iv)
19) (ii)	20) (iv)	21) (iii)	22) (iii)	23) (iv)	