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 30.38 m/sec and the speed of a stream is 5.51 m/sec. A & B are two location adjacent to a stream. If it takes 262.83 sec to go from point A to B and come back, What is the distance between A and B?

(i) 3863.06 m (ii) 3862.06 m (iii) 3861.06 m (iv) 3859.06 m (v) 3860.06 m

2. A student walks from his house to school at 6.46 kmph and arrives 1.40 min late. The next day he walks at 8.69 kmph and reaches the school 8.00 min before time. What is the distance from his house to school?

(i) 2.94 km (ii) 4.94 km (iii) 1.94 km (iv) 3.94 km (v) 5.94 km

3. A student walks from his house to school at 4.33 kmph and arrives 21.80 min late. The next day he walks at 17.78 kmph and reaches the school 21.10 min before time. At what speed must he travel to reach the school on time?

(i) 8.03 kmph (ii) 5.03 kmph (iii) 6.03 kmph (iv) 9.03 kmph (v) 7.03 kmph

4. A train crosses a telegraph post in 40.97 sec and a bridge 1264.93 m long in 80.29 sec. What is the length of the train?

(i) 1319.00 m (ii) 1317.00 m (iii) 1320.00 m (iv) 1316.00 m (v) 1318.00 m

5. A train crosses a telegraph post in 16.39 sec and a bridge 812.50 m long in 61.23 sec. What is the speed of the train?

(i) 16.12 m/sec (ii) 20.12 m/sec (iii) 17.12 m/sec (iv) 19.12 m/sec (v) 18.12 m/sec

6. A can do a work in 8 days. With the help of B, A can do the same work in $3\frac{3}{7}$ days. In how many days can B alone do the work?

(i) 7 days (ii) 8 days (iii) 6 days (iv) 5 days (v) 4 days

7. Due to a leak at the bottom, pipe Y takes $2\frac{1}{2}$ hr to fill the tank.
The leak alone can empty the full tank in 10 hr.
In what time can pipe Y alone fill the tank when the leak is closed?

(i) 4 hr (ii) 1 hr (iii) 0 hr (iv) 3 hr (v) 2 hr

8. A and B together can do a piece of work in $2\frac{8}{11}$ days.
They work together for 1 day and then A leaves.
B completes the remaining work in $3\frac{4}{5}$ days.
In how much time can each of them do the work seperately?

(i) $(4\text{ days}, 6\text{ days})$ (ii) $(5\text{ days}, 5\text{ days})$ (iii) $(5\text{ days}, 6\text{ days})$ (iv) $(6\text{ days}, 6\text{ days})$ (v) $(5\text{ days}, 7\text{ days})$

9. A can do $\frac{8}{14}$ of a work in $5\frac{1}{7}$ hr.
He works for 4 hr when B joins him.
They work together and complete the work in $2\frac{1}{2}$ hr.
In how much time, B alone can do the work?
(i) 11 hr (ii) 7 hr (iii) 9 hr (iv) 8 hr (v) 10 hr

10. Find the fourth proportional of 24, 6 and 12
(i) 1 (ii) 5 (iii) 6 (iv) 12 (v) 3

11. The work done by (x + 2) men in (4x) days and work done by (4x + 2) men in (x + 2) days is in the ratio of 10 : 11 . Find the value of x
(i) 5 (ii) 7 (iii) 4 (iv) 3 (v) 6

12. In an examination, the ratio of passes to failures was 6 : 5.
Had 95 less appeared and 20 less passed, the ratio of passes to failures would have been 4 : 1.
How many students appeared for the examination?
(i) 230 (ii) 215 (iii) 225 (iv) 220 (v) 210

13. In a company, the number of engineers to managers is in the ratio 2 : 1 . After a year, when 5 engineers and 15 managers left, the ratio between engineers to managers is 23 : 9 . Find the number of engineers and managers at the beginning?
(i) 180 (ii) 190 (iii) 170 (iv) 200 (v) 160

14. What number must be added to each term of the ratio 220 : 260 to make it 11 : 12 ?
(i) 223 (ii) 221 (iii) 219 (iv) 218 (v) 220

15. Two numbers are in the ratio 7 : 8. If 12 is added to each number, the ratio becomes 61 : 68. Find the numbers.
(i) 35 : 40 (ii) 42 : 48 (iii) 49 : 56 (iv) 63 : 72 (v) 56 : 64

16. The ratio of two numbers is
1 : 5
and their LCM is 70. Find the numbers.
(i) 13 : 65 (ii) 15 : 75 (iii) 16 : 80 (iv) 14 : 70 (v) 12 : 60

17. Find the number which bears the same ratio to $\frac{5}{8}$ that $\frac{1}{2}$ does to $\frac{35}{32}$
(i) $\frac{2}{7}$ (ii) $\frac{1}{7}$ (iii) $\frac{3}{7}$ (iv) $\frac{1}{4}$ (v) $\frac{1}{3}$

18. The ages of A and B are in the ratio 5 : 9. 7 years hence, their ages will be in the ratio 3 : 5. Find their present ages.
(i) 45 : 81 (ii) 30 : 54 (iii) 35 : 63 (iv) 25 : 45

19. The ages of A and B are in the ratio 5 : 9. 10 years ago, their ages were in the ratio 1 : 2. Find their present ages.
(i) 50 : 90 (ii) 40 : 72 (iii) 60 : 108 (iv) 45 : 81

20. In a mixture of 195 litres, the ratio of milk and water is 9 : 4. How much water must be added to this mixture to make the ratio 27 : 28?

(i) 79 (ii) 80 (iii) 77 (iv) 82 (v) 81

21. The ratio of males to females in a committee of 700 members is 19 : 16. How many more ladies should be added to the committee so that the ratio of males to females is 38 : 39?

(i) 71 (ii) 67 (iii) 73 (iv) 70 (v) 69

22. A motor boat can move at a speed of 29.26 m/sec in still water. If it goes upstream for 110.71 sec, it travels a distance of 1788.00 m. What is the speed of the stream?

(i) 14.11 m/sec (ii) 15.11 m/sec (iii) 12.11 m/sec (iv) 13.11 m/sec (v) 11.11 m/sec

23. A motor boat can move at a speed of 10.11 m/sec in still water. If it goes downstream for 315.30 sec, it travels a distance of 4430.00 m. What is the speed of the stream?

(i) 1.94 m/sec (ii) 3.94 m/sec (iii) 2.94 m/sec (iv) 4.94 m/sec (v) 5.94 m/sec

Assignment Key

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