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 19.32 m/sec and the speed of a stream is 10.32 m/sec. A & B are two location adjacent to a stream. If it takes 707.01 sec to go from point A to B and come back, What is the distance between A and B?

(i) 4879.00 m (ii) 4881.00 m (iii) 4880.00 m (iv) 4883.00 m (v) 4882.00 m

2. A student walks from his house to school at 3.78 kmph and arrives 14.40 min late. The next day he walks at 12.90 kmph and reaches the school 25.70 min before time. What is the distance from his house to school?

(i) 2.57 km (ii) 5.57 km (iii) 4.57 km (iv) 1.57 km (v) 3.57 km

3. A student walks from his house to school at 4.17 kmph and arrives 21.90 min late. The next day he walks at 12.92 kmph and reaches the school 13.70 min before time. At what speed must he travel to reach the school on time?

(i) 7.15 kmph (ii) 5.15 kmph (iii) 8.15 kmph (iv) 9.15 kmph (v) 6.15 kmph

4. A train crosses a telegraph post in 31.65 sec and a bridge 576.09 m long in 77.70 sec. What is the length of the train?

(i) 393.94 m (ii) 394.94 m (iii) 396.94 m (iv) 397.94 m (v) 395.94 m

5. A train crosses a telegraph post in 28.87 sec and a bridge 1479.45 m long in 65.81 sec. What is the speed of the train?

(i) 42.05 m/sec (ii) 40.05 m/sec (iii) 41.05 m/sec (iv) 38.05 m/sec (v) 39.05 m/sec

6. A can do a work in 4 days. With the help of B, A can do the same work in $2\frac{10}{13}$ days. In how many days can B alone do the work?

(i) 10 days (ii) 11 days (iii) 7 days (iv) 9 days (v) 8 days

7. Due to a leak at the bottom, pipe Y takes 8 hr to fill the tank.
The leak alone can empty the full tank in 24 hr.
In what time can pipe Y alone fill the tank when the leak is closed?

(i) 3 hr (ii) 6 hr (iii) 5 hr (iv) 7 hr (v) 8 hr

8. A and B together can do a piece of work in $5\frac{7}{22}$ days.
They work together for 2 days and then A leaves.
B completes the remaining work in $8\frac{1}{9}$ days.
In how much time can each of them do the work seperately?

(i) (10 days, 13 days) (ii) (9 days, 13 days) (iii) (9 days, 12 days) (iv) (8 days, 13 days) (v) (9 days, 14 days)

9. A can do $\frac{4}{5}$ of a work in $8\frac{4}{5}$ hr.
He works for 5 hr when B joins him.
They work together and complete the work in $2\frac{7}{10}$ hr.
In how much time, B alone can do the work?
(i) 10 hr (ii) 11 hr (iii) 9 hr (iv) 6 hr (v) 8 hr

10. Find the fourth proportional of 16, 4 and 12
(i) 3 (ii) 4 (iii) 5 (iv) 1 (v) 12

11. The work done by (2x + 2) men in (2x) days and work done by (x + 2) men in (7x + 4) days is in the ratio of 40 : 91 . Find the value of x
(i) 7 (ii) 3 (iii) 5 (iv) 4 (v) 6

12. In an examination, the ratio of passes to failures was 7 : 1.
Had 30 less appeared and 20 less passed, the ratio of passes to failures would have been 33 : 4.
How many students appeared for the examination?
(i) 395 (ii) 400 (iii) 390 (iv) 405 (v) 410

13. In a company, the number of engineers to managers is in the ratio 5 : 1 . After a year, when 20 engineers and 10 managers left, the ratio between engineers to managers is 6 : 1 . Find the number of engineers and managers at the beginning?
(i) 240 (ii) 230 (iii) 250 (iv) 260 (v) 220

14. What number must be added to each term of the ratio 90:288 to make it 23:34 ?
(i) 323 (ii) 325 (iii) 324 (iv) 321 (v) 327

15. Two numbers are in the ratio 8 : 11. If 12 is added to each number, the ratio becomes 10 : 13. Find the numbers.
(i) 32:44 (ii) 40:55 (iii) 64:88 (iv) 48:66 (v) 56:77

16. The ratio of two numbers is
4:1
and their LCM is 24. Find the numbers.
(i) 28:7 (ii) 24:6 (iii) 32:8 (iv) 16:4 (v) 20:5

17. Find the number which bears the same ratio to $\frac{2}{3}$ that $\frac{2}{3}$ does to $\frac{80}{9}$
(i) $\frac{1}{18}$ (ii) $(\frac{-1}{20})$ (iii) $\frac{1}{22}$ (iv) $\frac{1}{20}$ (v) $\frac{3}{20}$

18. The ages of A and B are in the ratio 5 : 3. 9 years hence, their ages will be in the ratio 11 : 7. Find their present ages.
(i) 85:51 (ii) 80:48 (iii) 90:54 (iv) 100:60

19. The ages of A and B are in the ratio 8 : 9. 10 years ago, their ages were in the ratio 7 : 8. Find their present ages.
(i) 72:81 (ii) 96:108 (iii) 64:72 (iv) 80:90

20. In a mixture of 500 litres, the ratio of milk and water is 18 : 7. How much water must be added to this mixture to make the ratio 90 : 53?

(i) 71 (ii) 74 (iii) 69 (iv) 73 (v) 72

21. The ratio of males to females in a committee of 126 members is 5 : 2. How many more ladies should be added to the committee so that the ratio of males to females is 15 : 14?

(i) 45 (ii) 48 (iii) 50 (iv) 49 (v) 47

22. A motor boat can move at a speed of 9.97 m/sec in still water. If it goes upstream for 2903.15 sec, it travels a distance of 3687.00 m. What is the speed of the stream?

(i) 8.70 m/sec (ii) 10.70 m/sec (iii) 7.70 m/sec (iv) 6.70 m/sec (v) 9.70 m/sec

23. A motor boat can move at a speed of 12.39 m/sec in still water. If it goes downstream for 184.13 sec, it travels a distance of 3412.00 m. What is the speed of the stream?

(i) 7.14 m/sec (ii) 4.14 m/sec (iii) 5.14 m/sec (iv) 8.14 m/sec (v) 6.14 m/sec

Assignment Key

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