EduSahara™ Assignment

Name : Word Problems on Linear Equations

Chapter : Simple Linear Equations

Grade : ICSE Grade VIII

1. A student walks from his house to school at 3.64 kmph and arrives 15.10 min late. The next day he walks at 16.91 kmph and reaches the school 23.20 min before time. What is the distance from his house to school?

   (i) 1.96 km (ii) 2.96 km (iii) 4.96 km (iv) 3.96 km (v) 0.96 km

2. A student walks from his house to school at 2.04 kmph and arrives 31.70 min late. The next day he walks at 8.40 kmph and reaches the school 10.50 min before time. At what speed must he travel to reach the school on time?

   (i) 6.72 kmph (ii) 3.72 kmph (iii) 5.72 kmph (iv) 2.72 kmph (v) 4.72 kmph

3. A train crosses a telegraph post in 47.87 sec and a bridge 676.09 m long in 80.77 sec. What is the length of the train?

   (i) 981.73 m (ii) 983.73 m (iii) 985.73 m (iv) 984.73 m (v) 982.73 m

4. A train crosses a telegraph post in 43.93 sec and a bridge 1615.73 m long in 82.01 sec. What is the speed of the train?

   (i) 40.43 m/sec (ii) 41.43 m/sec (iii) 42.43 m/sec (iv) 44.43 m/sec (v) 43.43 m/sec

5. A certain number of men can do a work in 36 days.
   If there were 28 men more, it would take 16 days less to complete the work.
   How many men are required to complete the work in 45 days?

   (i) 30 (ii) 25 (iii) 29 (iv) 27 (v) 28

6. Person P is five times as good a workman as Person Q.
   They can do a work together in $6\frac{2}{3}$ days.
   In how many days Q alone can do the work?

   (i) 43 days (ii) 39 days (iii) 38 days (iv) 41 days (v) 40 days

7. What number must be added to each term of the ratio 20 : 120 to make it 3 : 5 ?

   (i) 132 (ii) 130 (iii) 129 (iv) 131 (v) 127

8. A ratio is equal to 8 : 25. If its antecendent is 840, what is its consequent?

   (i) 2623 (ii) 2625 (iii) 2628 (iv) 2624 (v) 2626

9. A ratio is equal to 6 : 25. If its consequent is 1400, what is its antecendent?

   (i) 338 (ii) 335 (iii) 337 (iv) 333 (v) 336

10. Two numbers are in the ratio 6 : 18. If 20 is added to each number, the ratio becomes 11 : 29. Find the numbers.

    (i) 78 : 234 (ii) 90 : 270 (iii) 102 : 306 (iv) 84 : 252 (v) 96 : 288

11. The ratio of two numbers is
    5 : 3
    and their LCM is 225. Find the numbers.

    (i) 85 : 51 (ii) 70 : 42 (iii) 65 : 39 (iv) 80 : 48 (v) 75 : 45

12. Find the number which bears the same ratio to $\frac{2}{7}$ that $\frac{1}{5}$ does to $\frac{4}{35}$

(i) $\frac{1}{2}$ (ii) $\frac{1}{4}$ (iii) 1 (iv) $(\frac{-1}{2})$ (v) $\frac{3}{2}$

13. The ages of A and B are in the ratio 7 : 10. 9 years hence, their ages will be in the ratio 8 : 11. Find their present ages.

(i) 63:90 (ii) 49:70 (iii) 77:110 (iv) 56:80

14. The ages of A and B are in the ratio 3 : 5. 7 years ago, their ages were in the ratio 5 : 9. Find their present ages.

(i) 42:70 (ii) 48:80 (iii) 39:65 (iv) 36:60

15. In a mixture of 121 litres, the ratio of milk and water is 5 : 6. How much water must be added to this mixture to make the ratio 11 : 26?

(i) 63 (ii) 66 (iii) 64 (iv) 65 (v) 62

16. The ratio of males to females in a committee of 310 members is 20 : 11. How many more ladies should be added to the committee so that the ratio of males to females is 5 : 4?

(i) 52 (ii) 48 (iii) 49 (iv) 51 (v) 50

17. In an examination, the ratio of passes to failures was 2 : 1.
Had 15 less appeared and 10 less passed, the ratio of passes to failures would have been 2 : 1.
How many students appeared for the examination?

(i) 80 (ii) 90 (iii) 95 (iv) 100 (v) 85

18. In a company, the number of engineers to managers is in the ratio 3 : 1 . After a year, when 20 engineers and 15 managers left, the ratio between engineers to managers is 32 : 9 . Find the number of engineers and managers at the beginning?

(i) 260 (ii) 250 (iii) 240 (iv) 220 (v) 230

19. Two angles of a triangle measure 62° and 68° respectively. Find the measure of the third angle of the triangle

(i) 52° (ii) 48° (iii) 50° (iv) 49° (v) 51°

20. The angles of a triangle ABC are in the ratio 4 : 3 : 5. Find the measure of each angle of the triangle

(i) A=62°,B=45°,C=73° (ii) A=58°,B=45°,C=77° (iii) A=58°,B=47°,C=75° (iv) A=60°,B=45°,C=75°

(v) A=60°,B=43°,C=77°

21. In $\triangle FGH$, if $\angle F = 55°$ and $\angle G = 61°$, find the measure of $\angle H$

(i) H=65° (ii) H=62° (iii) H=64° (iv) H=63° (v) H=66°

22. In $\triangle JKL$, if $\angle J = 50°$ and $\angle K = \angle L$, find the measure of each of the equal angles of the triangle

(i) 63° (ii) 65° (iii) 67° (iv) 66° (v) 64°

23. One angle of a triangle measures 55° and the other two angles are in the ratio 4 : 21. Find these angles.

(i) B=19°,C=104° (ii) B=20°,C=105° (iii) B=22°,C=107° (iv) B=21°,C=106° (v) B=18°,C=103°

24. In a right-angled triangle, the two acute angles are in the ratio 13 : 5. Find these angles.

(i) A=65°,C=25° (ii) A=66°,C=26° (iii) A=67°,C=27° (iv) A=63°,C=23° (v) A=64°,C=24°

25. The speed of a motor boat is 11.73 m/sec and the speed of a stream is 5.73 m/sec. A & B are two location adjacent to a stream. If it takes 440.04 sec to go from point A to B and come back, What is the distance between A and B?

(i) 1963.99 m (ii) 1962.99 m (iii) 1964.99 m (iv) 1966.99 m (v) 1965.99 m

Assignment Key

1) (ii)	2) (v)	3) (ii)	4) (iii)	5) (v)	6) (v)
7) (ii)	8) (ii)	9) (v)	10) (ii)	11) (v)	12) (i)
13) (i)	14) (i)	15) (iii)	16) (v)	17) (ii)	18) (iii)
19) (iii)	20) (iv)	21) (iii)	22) (ii)	23) (ii)	24) (i)
25) (iii)					