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 2.65 kmph and arrives 16.40 min late. The next day he walks at 7.72 kmph and reaches the school 2.90 min before time. What is the distance from his house to school?

   (i) 2.30 km (ii) 1.30 km (iii) 0.30 km (iv) 3.30 km (v) 9.30 km

2. A student walks from his house to school at 5.12 kmph and arrives 35.00 min late. The next day he walks at 26.74 kmph and reaches the school 9.30 min before time. At what speed must he travel to reach the school on time?

   (i) 14.18 kmph (ii) 16.18 kmph (iii) 15.18 kmph (iv) 13.18 kmph (v) 12.18 kmph

3. A train crosses a telegraph post in 40.55 sec and a bridge 845.90 m long in 58.59 sec. What is the length of the train?

   (i) 1900.39 m (ii) 1901.39 m (iii) 1902.39 m (iv) 1899.39 m (v) 1903.39 m

4. A train crosses a telegraph post in 17.72 sec and a bridge 1269.03 m long in 65.59 sec. What is the speed of the train?

   (i) 25.51 m/sec (ii) 28.51 m/sec (iii) 24.51 m/sec (iv) 26.51 m/sec (v) 27.51 m/sec

5. A certain number of men can do a work in 32 days.
   If there were 18 men more, it would take 8 days less to complete the work.
   How many men are required to complete the work in 48 days?

   (i) 35 (ii) 37 (iii) 36 (iv) 34 (v) 39

6. Person P is nine times as good a workman as Person Q.
   They can do a work together in $1\frac{4}{5}$ days.
   In how many days Q alone can do the work?

   (i) 15 days (ii) 19 days (iii) 20 days (iv) 18 days (v) 17 days

7. What number must be added to each term of the ratio 54 : 288 to make it 16 : 29 ?

   (i) 236 (ii) 235 (iii) 231 (iv) 233 (v) 234

8. A ratio is equal to 1 : 1. If its antecendent is 700, what is its consequent?

   (i) 699 (ii) 703 (iii) 697 (iv) 700 (v) 701

9. A ratio is equal to 4 : 3. If its consequent is 6930, what is its antecendent?

   (i) 9241 (ii) 9240 (iii) 9239 (iv) 9238 (v) 9242

10. Two numbers are in the ratio 3 : 17. If 20 is added to each number, the ratio becomes 31 : 129. Find the numbers.

    (i) 36 : 204 (ii) 45 : 255 (iii) 48 : 272 (iv) 42 : 238 (v) 39 : 221

11. The ratio of two numbers is $2:3$ and their LCM is 78. Find the numbers.

(i) $24:36$ (ii) $28:42$ (iii) $22:33$ (iv) $26:39$ (v) $30:45$

12. Find the number which bears the same ratio to $\frac{6}{8}$ that $\frac{1}{4}$ does to $\frac{3}{13}$

(i) $\frac{13}{18}$ (ii) $\frac{13}{14}$ (iii) $\frac{11}{16}$ (iv) $\frac{13}{16}$ (v) $\frac{15}{16}$

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

(i) $64:56$ (ii) $88:77$ (iii) $56:49$ (iv) $72:63$

14. The ages of A and B are in the ratio 7 : 10. 5 years ago, their ages were in the ratio 2 : 3. Find their present ages.

(i) $28:40$ (ii) $21:30$ (iii) $49:70$ (iv) $35:50$

15. In a mixture of $84$ litres, the ratio of milk and water is $2:5$. How much water must be added to this mixture to make the ratio $4:15$?

(i) 32 (ii) 27 (iii) 31 (iv) 30 (v) 29

16. The ratio of males to females in a committee of 195 members is 5 : 8. How many more ladies should be added to the committee so that the ratio of males to females is 25 : 64?

(i) 69 (ii) 73 (iii) 72 (iv) 75 (v) 71

17. In an examination, the ratio of passes to failures was 8 : 1. Had 75 less appeared and 20 less passed, the ratio of passes to failures would have been 124 : 5. How many students appeared for the examination?

(i) 730 (ii) 720 (iii) 715 (iv) 710 (v) 725

18. In a company, the number of engineers to managers is in the ratio 9 : 4 . After a year, when 10 engineers and 15 managers left, the ratio between engineers to managers is 142 : 61 . Find the number of engineers and managers at the beginning?

(i) 1060 (ii) 1030 (iii) 1050 (iv) 1020 (v) 1040

19. Two angles of a triangle measure 69° and 70° respectively. Find the measure of the third angle of the triangle

(i) 43° (ii) 42° (iii) 40° (iv) 41° (v) 39°

20. The angles of a triangle ABC are in the ratio 9 : 33 : 48. Find the measure of each angle of the triangle

(i) $A=16°, B=66°, C=98°$ (ii) $A=20°, B=66°, C=94°$ (iii) $A=18°, B=66°, C=96°$ (iv) $A=18°, B=64°, C=98°$

(v) $A=16°, B=68°, C=96°$

21. In $\triangle GHI$, if $\angle G = 53°$ and $\angle H = 62°$, find the measure of $\angle I$

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

22. In $\triangle JKL$, if $\angle J = 30°$ and $\angle K = \angle L$, find the measure of each of the equal angles of the triangle

(i) 75° (ii) 74° (iii) 76° (iv) 77° (v) 73°

23. One angle of a triangle measures 60° and the other two angles are in the ratio 3 : 5. Find these angles.

(i) B=47°,C=77° (ii) B=43°,C=73° (iii) B=46°,C=76° (iv) B=44°,C=74° (v) B=45°,C=75°

24. In a right-angled triangle, the two acute angles are in the ratio 1 : 1. Find these angles.

(i) A=46°,C=46° (ii) A=44°,C=44° (iii) A=47°,C=47° (iv) A=43°,C=43° (v) A=45°,C=45°

25. The speed of a motor boat is 10.33 m/sec and the speed of a stream is 4.33 m/sec. A & B are two location adjacent to a stream. If it takes 913.68 sec to go from point A to B and come back, What is the distance between A and B?

(i) 3887.99 m (ii) 3891.99 m (iii) 3889.99 m (iv) 3890.99 m (v) 3888.99 m

## Assignment Key

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