EduSahara™ Assignment

Name : Word Problems on Linear Equations

Chapter : Linear Equations in One Variable

Grade : SSC Grade VIII

1. A man reduces his weight in the ratio 19 : 13. What is his weight now, if originally he was 86 kg ?

   (i) $\frac{1156}{19}$ kg (ii) $\frac{1137}{19}$ kg (iii) $\frac{1120}{19}$ kg (iv) $\frac{1118}{19}$ kg (v) $\frac{1119}{19}$ kg

2. A certain amount has been divided into two parts in the ratio 9 : 6. If the first part is 351, find the total amount.

   (i) 585 (ii) 588 (iii) 583 (iv) 586 (v) 584

3. A bag contains ₹917 in the form of five-rupee, two-rupee and one-rupee coins in the ratio 17 : 18 : 10. Find the number of coins of each type

   (i) 117 , 131 , 70 (ii) 120 , 131 , 65 (iii) 118 , 126 , 75 (iv) 119 , 126 , 70 (v) 121 , 121 , 70

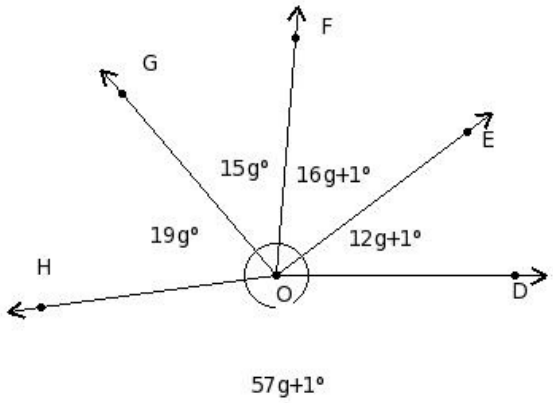
4. In an examination, the ratio of passes to failures was 9 : 5.
   Had 45 less appeared and 15 less passed, the ratio of passes to failures would have been 87 : 44.
   How many students appeared for the examination?

   (i) 705 (ii) 690 (iii) 700 (iv) 695 (v) 710

5. In a company, the number of engineers to managers is in the ratio 9 : 5 . After a year, when 15 engineers and 20 managers left, the ratio between engineers to managers is 41 : 22 . Find the number of engineers and managers at the beginning?

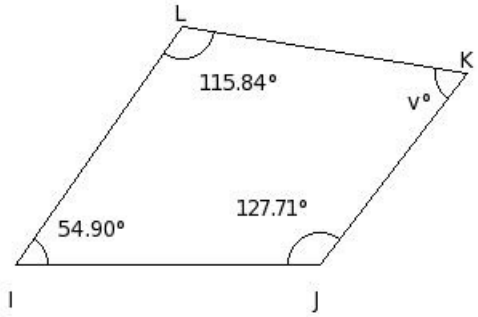
   (i) 980 (ii) 1000 (iii) 990 (iv) 970 (v) 960

6. Find the value of 'g' in the following figure



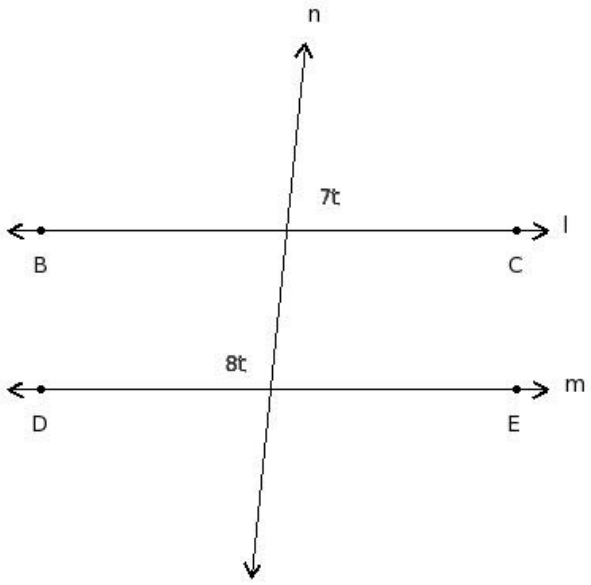
   (i) 3 (ii) 1 (iii) 2 (iv) 4 (v) 5

7. Find the missing angle in the given quadrilateral



   (i) 71.54° (ii) 76.54° (iii) 91.54° (iv) 61.54° (v) 66.54°

8. In the given figure l ∥ m. Find the value of 't'



(i) 15 (ii) 10 (iii) 11 (iv) 12 (v) 13

9. The work done by (2x + 1) men in (7x) days and work done by (35x) men in (x + 1) days is in the ratio of 1 : 3 . Find the value of x

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

10. Two numbers are in the ratio 9 : 4 and their difference is 105. Find the numbers.

(i) 189,87 (ii) 189,82 (iii) 190,84 (iv) 189,84 (v) 188,84

11. The sides of a triangle are in the ratio $\frac{1}{4} : \frac{1}{9} : \frac{1}{7}$ and its perimeter is 2413 cm.

Find the lengths of the sides of the triangle

(i) 1202 cm : 527 cm : 684 cm (ii) 1192 cm : 532 cm : 689 cm (iii) 1192 cm : 537 cm : 684 cm

(iv) 1197 cm : 532 cm : 684 cm (v) 1202 cm : 532 cm : 679 cm

12. An office contains 512 employees of 4 types. The managers, team leaders, developers and testers are in the ratio 3 : 2 : 5 : 6. The number of managers in the office =

(i) 95 (ii) 99 (iii) 97 (iv) 94 (v) 96

13. The speed of a motor boat is 13.23 m/sec and the speed of a stream is 3.23 m/sec. A & B are two location adjacent to a stream. If it takes 432.10 sec to go from point A to B and come back, What is the distance between A and B?

(i) 2687.97 m (ii) 2689.97 m (iii) 2685.97 m (iv) 2686.97 m (v) 2688.97 m

14. A student walks from his house to school at 5.20 kmph and arrives 1.40 min late. The next day he walks at 10.57 kmph and reaches the school 20.70 min before time. What is the distance from his house to school?

(i) 2.77 km (ii) 3.77 km (iii) 1.77 km (iv) 4.77 km (v) 5.77 km

15. A train crosses a telegraph post in 43.52 sec and a bridge 688.63 m long in 79.09 sec. What is the length of the train?

(i) 843.55 m (ii) 841.55 m (iii) 840.55 m (iv) 844.55 m (v) 842.55 m

16. A train crosses a telegraph post in 49.41 sec and a bridge 501.28 m long in 59.95 sec. What is the speed of the train?

(i) 49.56 m/sec (ii) 47.56 m/sec (iii) 48.56 m/sec (iv) 45.56 m/sec (v) 46.56 m/sec

17. A can do a work in 8 days. With the help of B, A can do the same work in $4\frac{4}{17}$ days. In how many days can B alone do the work?

(i) 12 days (ii) 8 days (iii) 10 days (iv) 9 days (v) 7 days

18. Due to a leak at the bottom, pipe Y takes $11\frac{1}{4}$ hr to fill the tank.
The leak alone can empty the full tank in 45 hr.
In what time can pipe Y alone fill the tank when the leak is closed?

(i) 8 hr (ii) 6 hr (iii) 9 hr (iv) 10 hr (v) 11 hr

19. A, B and C together can do a work in $1\frac{1}{19}$ days.
If A and C can do the work in 4 days and 5 days respectively,
in how many days can B alone do the work?

(i) 3 days (ii) 2 days (iii) 5 days (iv) 0 days (v) 1 day

20. A and B together can do a piece of work in $6\frac{20}{27}$ hr.
They work together for 1 hr and then A leaves.
B completes the remaining work in $11\frac{12}{13}$ hr.
In how much time can each of them do the work seperately?

(i) $(14\text{ hr}, 14\text{ hr})$ (ii) $(13\text{ hr}, 14\text{ hr})$ (iii) $(13\text{ hr}, 13\text{ hr})$ (iv) $(13\text{ hr}, 15\text{ hr})$ (v) $(12\text{ hr}, 14\text{ hr})$

21. A and B together can do a piece of work in $4\frac{2}{17}$ days.
They work together for 1 day and then A leaves.
B completes the remaining work in $7\frac{4}{7}$ days.
In how much time can each of them do the work seperately?

(i) $(7\text{ days}, 11\text{ days})$ (ii) $(7\text{ days}, 9\text{ days})$ (iii) $(6\text{ days}, 10\text{ days})$ (iv) $(8\text{ days}, 10\text{ days})$ (v) $(7\text{ days}, 10\text{ days})$

22. A can do $\frac{7}{8}$ of a work in $9\frac{5}{8}$ hr.
He works for 4 hr when B joins him.
They work together and complete the work in $3\frac{1}{2}$ hr.
In how much time, B alone can do the work?

(i) 10 hr (ii) 9 hr (iii) 12 hr (iv) 11 hr (v) 13 hr

23. What number must be added to each term of the ratio $12:24$ to make it $21:22$?

(i) 242 (ii) 239 (iii) 238 (iv) 241 (v) 240

24. A ratio is equal to 28 : 25. If its antecendent is 784, what is its consequent?

(i) 700 (ii) 701 (iii) 699 (iv) 697 (v) 702

25. A ratio is equal to 2 : 5. If its consequent is 15960, what is its antecendent?

(i) 6381 (ii) 6383 (iii) 6385 (iv) 6386 (v) 6384

26. Two numbers are in the ratio 6 : 11. If 16 is added to each number, the ratio becomes 8 : 13. Find the numbers.

(i) 42 : 77 (ii) 60 : 110 (iii) 36 : 66 (iv) 54 : 99 (v) 48 : 88

27. The ratio of two numbers is 5 : 4 and their LCM is 280. Find the numbers.

(i) 75 : 60 (ii) 80 : 64 (iii) 60 : 48 (iv) 70 : 56 (v) 65 : 52

28. The ages of A and B are in the ratio 8 : 7. 6 years hence, their ages will be in the ratio 9 : 8. Find their present ages.

(i) 48 : 42 (ii) 32 : 28 (iii) 64 : 56 (iv) 40 : 35

29. The ages of A and B are in the ratio 2 : 1. 8 years ago, their ages were in the ratio 9 : 4. Find their present ages.

(i) 78 : 39 (ii) 76 : 38 (iii) 84 : 42 (iv) 80 : 40

30. The ratio of males to females in a committee of 527 members is 15 : 16. How many more ladies should be added to the committee so that the ratio of males to females is 85 : 104?

(i) 42 (ii) 38 (iii) 40 (iv) 39 (v) 41

Assignment Key

1) (iv)	2) (i)	3) (iv)	4) (iii)	5) (i)	6) (i)
7) (iv)	8) (iv)	9) (i)	10) (iv)	11) (iv)	12) (v)
13) (i)	14) (ii)	15) (v)	16) (ii)	17) (iv)	18) (iii)
19) (ii)	20) (ii)	21) (v)	22) (iv)	23) (v)	24) (i)
25) (v)	26) (v)	27) (iv)	28) (i)	29) (iv)	30) (iii)