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 18 : 12. What is his weight now, if originally he was 89 kg ?

   (i) $\frac{178}{3}$ kg (ii) $\frac{179}{3}$ kg (iii) $\frac{181}{3}$ kg (iv) 60 kg (v) $\frac{184}{3}$ kg

2. A certain amount has been divided into two parts in the ratio 2 : 4. If the first part is 66, find the total amount.

   (i) 198 (ii) 199 (iii) 200 (iv) 197 (v) 195

3. A bag contains ₹910 in the form of five-rupee, two-rupee and one-rupee coins in the ratio 9 : 8 : 4. Find the number of coins of each type

   (i) 125 , 112 , 61 (ii) 127 , 117 , 51 (iii) 128 , 107 , 56 (iv) 124 , 117 , 56 (v) 126 , 112 , 56

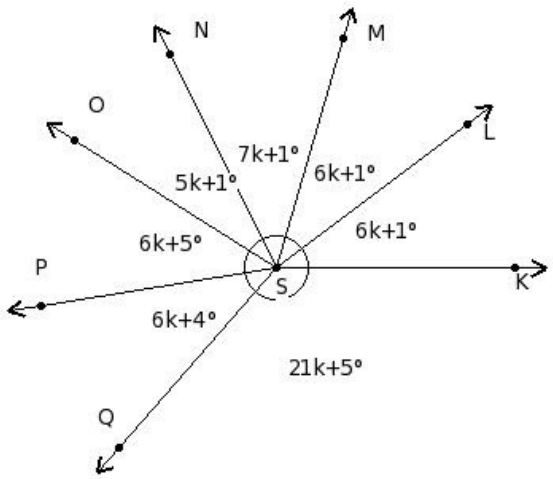
4. In an examination, the ratio of passes to failures was 2 : 1.
   Had 10 less appeared and 15 less passed, the ratio of passes to failures would have been 1 : 1.
   How many students appeared for the examination?

   (i) 65 (ii) 60 (iii) 50 (iv) 70 (v) 55

5. In a company, the number of engineers to managers is in the ratio 9 : 4 . After a year, when 10 engineers and 20 managers left, the ratio between engineers to managers is 13 : 5 . Find the number of engineers and managers at the beginning?

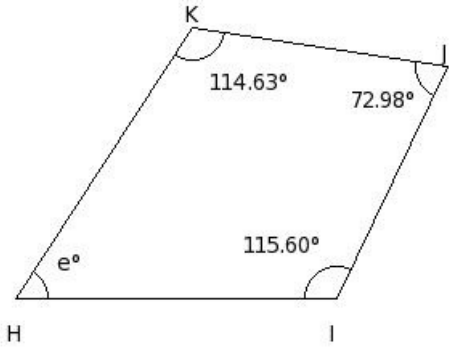
   (i) 390 (ii) 400 (iii) 410 (iv) 380 (v) 370

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



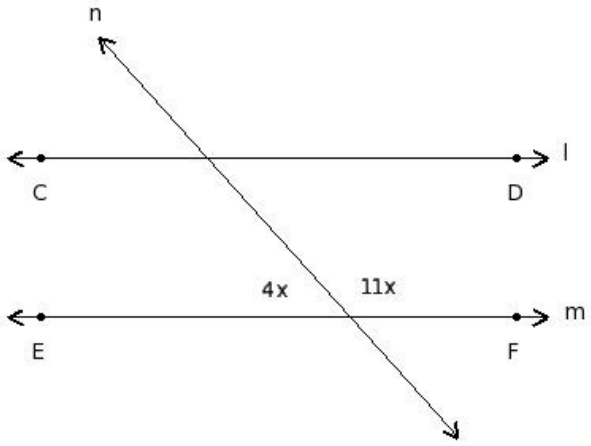
   (i) 9 (ii) 5 (iii) 7 (iv) 6 (v) 3

7. Find the missing angle in the given quadrilateral



(i) 66.79° (ii) 86.79° (iii) 61.79° (iv) 56.79° (v) 71.79°

8. In the given figure l ∥ m. Find the value of 'x'



(i) 14 (ii) 11 (iii) 13 (iv) 12 (v) 10

9. The work done by (4x + 1) men in (5x) days and work done by (2x) men in (21x) days is in the ratio of 15 : 28 . Find the value of x

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

10. Two numbers are in the ratio 7 : 2 and their difference is 150. Find the numbers.

(i) 211,60 (ii) 210,60 (iii) 210,57 (iv) 209,60 (v) 210,62

11. The sides of a triangle are in the ratio $\frac{1}{3} : \frac{1}{2} : \frac{1}{6}$ and its perimeter is 72 cm.

Find the lengths of the sides of the triangle

(i) 29 cm : 31 cm : 12 cm (ii) 24 cm : 36 cm : 12 cm (iii) 19 cm : 36 cm : 17 cm (iv) 29 cm : 36 cm : 7 cm

(v) 19 cm : 41 cm : 12 cm

12. An office contains 225 employees of 4 types. The managers, team leaders, developers and testers are in the ratio 3 : 4 : 2 : 6. The number of managers in the office =

(i) 42 (ii) 44 (iii) 45 (iv) 46 (v) 47

13. The speed of a motor boat is 17.57 m/sec and the speed of a stream is 11.57 m/sec. A & B are two location adjacent to a stream. If it takes 215.25 sec to go from point A to B and come back, What is the distance between A and B?

(i) 1068.98 m (ii) 1070.98 m (iii) 1069.98 m (iv) 1071.98 m (v) 1072.98 m

14. A student walks from his house to school at 6.59 kmph and arrives 0.30 min late. The next day he walks at 7.60 kmph and reaches the school 3.80 min before time. What is the distance from his house to school?

(i) 2.37 km (ii) 3.37 km (iii) 1.37 km (iv) 4.37 km (v) 5.37 km

15. A train crosses a telegraph post in 13.56 sec and a bridge 551.26 m long in 53.71 sec. What is the length of the train?

(i) 188.18 m (ii) 185.18 m (iii) 187.18 m (iv) 184.18 m (v) 186.18 m

16. A train crosses a telegraph post in 25.37 sec and a bridge 836.60 m long in 61.26 sec. What is the speed of the train?

(i) 21.31 m/sec (ii) 25.31 m/sec (iii) 24.31 m/sec (iv) 23.31 m/sec (v) 22.31 m/sec

17. A can do a work in 7 days. With the help of B, A can do the same work in $2\frac{6}{11}$ days. In how many days can B alone do the work?

(i) 5 days (ii) 4 days (iii) 3 days (iv) 7 days (v) 2 days

18. Due to a leak at the bottom, pipe Y takes $4\frac{1}{2}$ hr to fill the tank.
The leak alone can empty the full tank in 9 hr.
In what time can pipe Y alone fill the tank when the leak is closed?

(i) 3 hr (ii) 4 hr (iii) 0 hr (iv) 6 hr (v) 2 hr

19. A, B and C together can do a work in $\frac{12}{13}$ days.
If A and C can do the work in 2 days and 4 days respectively,
in how many days can B alone do the work?

(i) 2 days (ii) 0 days (iii) 5 days (iv) 3 days (v) 4 days

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

(i) (7 hr, 11 hr) (ii) (7 hr, 9 hr) (iii) (7 hr, 10 hr) (iv) (6 hr, 10 hr) (v) (8 hr, 10 hr)

21. A and B together can do a piece of work in $3\frac{13}{19}$ days.
They work together for 1 day and then A leaves.
B completes the remaining work in $10\frac{1}{5}$ days.
In how much time can each of them do the work seperately?

(i) (5 days, 14 days) (ii) (5 days, 15 days) (iii) (6 days, 14 days) (iv) (5 days, 13 days) (v) (4 days, 14 days)

22. A can do $\frac{1}{13}$ of a work in $1\frac{2}{13}$ hr.
He works for 6 hr when B joins him.
They work together and complete the work in $3\frac{3}{5}$ hr.
In how much time, B alone can do the work?
(i) 13 hr (ii) 11 hr (iii) 9 hr (iv) 8 hr (v) 10 hr

23. What number must be added to each term of the ratio 60 : 108 to make it 25 : 29 ?
(i) 238 (ii) 241 (iii) 239 (iv) 240 (v) 243

24. A ratio is equal to 3 : 25. If its antecendent is 693, what is its consequent?
(i) 5774 (ii) 5777 (iii) 5775 (iv) 5773 (v) 5776

25. A ratio is equal to 63 : 5. If its consequent is 280, what is its antecendent?
(i) 3528 (ii) 3527 (iii) 3531 (iv) 3529 (v) 3526

26. Two numbers are in the ratio 2 : 8. If 16 is added to each number, the ratio becomes 23 : 68. Find the numbers.
(i) 26 : 104 (ii) 30 : 120 (iii) 34 : 136 (iv) 32 : 128 (v) 28 : 112

27. The ratio of two numbers is
4 : 5
and their LCM is 120. Find the numbers.
(i) 32 : 40 (ii) 16 : 20 (iii) 20 : 25 (iv) 24 : 30 (v) 28 : 35

28. The ages of A and B are in the ratio 3 : 5. 8 years hence, their ages will be in the ratio 7 : 11. Find their present ages.
(i) 45 : 75 (ii) 42 : 70 (iii) 48 : 80 (iv) 54 : 90

29. The ages of A and B are in the ratio 9 : 5. 8 years ago, their ages were in the ratio 2 : 1. Find their present ages.
(i) 54 : 30 (ii) 90 : 50 (iii) 63 : 35 (iv) 72 : 40

30. The ratio of males to females in a committee of 320 members is 19 : 13. How many more ladies should be added to the committee so that the ratio of males to females is 19 : 17?
(i) 41 (ii) 40 (iii) 38 (iv) 43 (v) 39

Assignment Key

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