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 17 : 12. What is his weight now, if originally he was 65 kg ?

   (i) $\frac{780}{17}$ kg (ii) $\frac{781}{17}$ kg (iii) 46 kg (iv) $\frac{797}{17}$ kg (v) $\frac{814}{17}$ kg

2. A certain amount has been divided into two parts in the ratio 8 : 2. If the first part is 304, find the total amount.

   (i) 380 (ii) 379 (iii) 381 (iv) 382 (v) 377

3. A bag contains ₹576 in the form of five-rupee, two-rupee and one-rupee coins in the ratio 5 : 17 : 5. Find the number of coins of each type

   (i) 45 , 153 , 45 (ii) 43 , 158 , 45 (iii) 47 , 148 , 45 (iv) 46 , 158 , 40 (v) 44 , 153 , 50

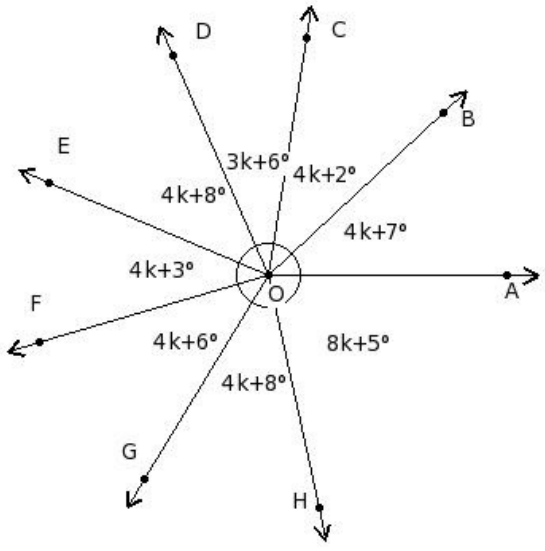
4. In an examination, the ratio of passes to failures was 3 : 1.
   Had 10 less appeared and 5 less passed, the ratio of passes to failures would have been 29 : 9.
   How many students appeared for the examination?

   (i) 195 (ii) 210 (iii) 205 (iv) 200 (v) 190

5. In a company, the number of engineers to managers is in the ratio 2 : 1 . After a year, when 15 engineers and 15 managers left, the ratio between engineers to managers is 11 : 5 . Find the number of engineers and managers at the beginning?

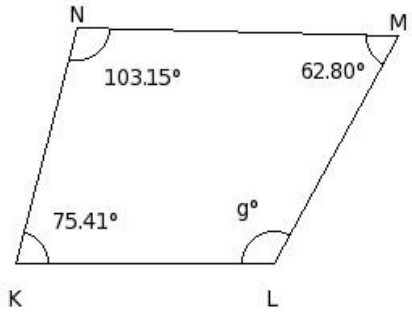
   (i) 280 (ii) 270 (iii) 290 (iv) 260 (v) 250

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



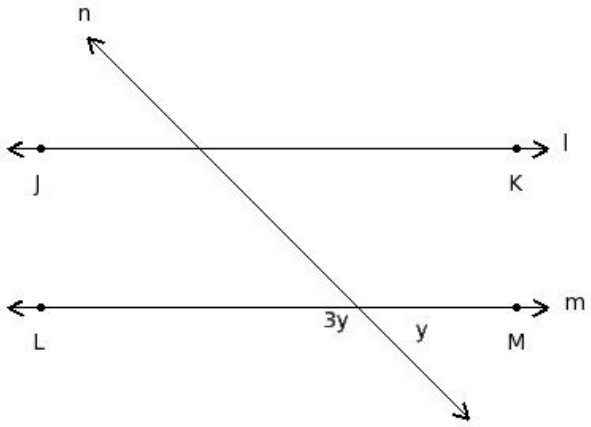
   (i) 9 (ii) 10 (iii) 11 (iv) 6 (v) 8

7. Find the missing angle in the given quadrilateral



(i) 128.64° (ii) 133.64° (iii) 118.64° (iv) 148.64° (v) 123.64°

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



(i) 45 (ii) 44 (iii) 48 (iv) 46 (v) 43

9. The work done by (2x + 1) men in (7x + 1) days and work done by (24x + 1) men in (2x + 1) days is in the ratio of 15 : 49 . Find the value of x

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

10. Two numbers are in the ratio 2 : 1 and their difference is 27. Find the numbers.

(i) 54,25 (ii) 54,27 (iii) 55,27 (iv) 53,27 (v) 54,30

11. The sides of a triangle are in the ratio $\frac{1}{4} : \frac{1}{7} : \frac{1}{9}$ and its perimeter is 1524 cm.

Find the lengths of the sides of the triangle

(i) 751 cm : 437 cm : 336 cm (ii) 761 cm : 427 cm : 336 cm (iii) 751 cm : 432 cm : 341 cm

(iv) 761 cm : 432 cm : 331 cm (v) 756 cm : 432 cm : 336 cm

12. An office contains 722 employees of 4 types. The managers, team leaders, developers and testers are in the ratio 4 : 2 : 6 : 7. The number of managers in the office =

(i) 154 (ii) 152 (iii) 153 (iv) 151 (v) 150

13. The speed of a motor boat is 12.53 m/sec and the speed of a stream is 6.91 m/sec. A & B are two location adjacent to a stream. If it takes 874.61 sec to go from point A to B and come back, What is the distance between A and B?

(i) 3810.99 m (ii) 3811.99 m (iii) 3813.99 m (iv) 3812.99 m (v) 3814.99 m

14. A student walks from his house to school at 4.34 kmph and arrives 24.10 min late. The next day he walks at 20.37 kmph and reaches the school 19.80 min before time. What is the distance from his house to school?

(i) 5.04 km (ii) 6.04 km (iii) 3.04 km (iv) 4.04 km (v) 2.04 km

15. A train crosses a telegraph post in 44.45 sec and a bridge 992.73 m long in 76.35 sec. What is the length of the train?

(i) 1384.28 m (ii) 1382.28 m (iii) 1383.28 m (iv) 1385.28 m (v) 1381.28 m

16. A train crosses a telegraph post in 26.54 sec and a bridge 1187.15 m long in 58.41 sec. What is the speed of the train?

(i) 35.25 m/sec (ii) 36.25 m/sec (iii) 38.25 m/sec (iv) 37.25 m/sec (v) 39.25 m/sec

17. A can do a work in 2 days. With the help of B, A can do the same work in $1\frac{3}{5}$ days. In how many days can B alone do the work?

(i) 7 days (ii) 9 days (iii) 10 days (iv) 8 days (v) 5 days

18. Due to a leak at the bottom, pipe Y takes 16 hr to fill the tank.
The leak alone can empty the full tank in 16 hr.
In what time can pipe Y alone fill the tank when the leak is closed?

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

19. A, B and C together can do a work in $1\frac{3}{7}$ days.
If A and C can do the work in 5 days and 4 days respectively,
in how many days can B alone do the work?

(i) 1 day (ii) 3 days (iii) 4 days (iv) 7 days (v) 5 days

20. A and B together can do a piece of work in $4\frac{11}{20}$ hr.
They work together for 2 hr and then A leaves.
B completes the remaining work in $7\frac{2}{7}$ hr.
In how much time can each of them do the work seperately?

(i) (8 hr, 13 hr) (ii) (7 hr, 13 hr) (iii) (7 hr, 12 hr) (iv) (6 hr, 13 hr) (v) (7 hr, 14 hr)

21. A and B together can do a piece of work in $6\frac{6}{13}$ days.
They work together for 2 days and then A leaves.
B completes the remaining work in $8\frac{2}{7}$ days.
In how much time can each of them do the work seperately?

(i) (13 days, 12 days) (ii) (15 days, 12 days) (iii) (14 days, 12 days) (iv) (14 days, 13 days)
(v) (14 days, 11 days)

22. A can do $\frac{5}{8}$ of a work in $7\frac{1}{2}$ hr.
He works for 3 hr when B joins him.
They work together and complete the work in $3\frac{6}{7}$ hr.
In how much time, B alone can do the work?

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

23. What number must be added to each term of the ratio $18:36$ to make it $12:13$?

(i) 197 (ii) 198 (iii) 196 (iv) 201 (v) 199

24. A ratio is equal to 7 : 3. If its antecendent is 1260, what is its consequent?

(i) 542 (ii) 541 (iii) 537 (iv) 539 (v) 540

25. A ratio is equal to 21 : 65. If its consequent is 1300, what is its antecendent?

(i) 421 (ii) 417 (iii) 420 (iv) 422 (v) 419

26. Two numbers are in the ratio 4 : 11. If 12 is added to each number, the ratio becomes 24 : 59. Find the numbers.

(i) $60:165$ (ii) $56:154$ (iii) $68:187$ (iv) $52:143$ (v) $64:176$

27. The ratio of two numbers is
$5:4$
and their LCM is 160. Find the numbers.

(i) $30:24$ (ii) $45:36$ (iii) $50:40$ (iv) $40:32$ (v) $35:28$

28. The ages of A and B are in the ratio 5 : 6. 10 years hence, their ages will be in the ratio 6 : 7. Find their present ages.

(i) $45:54$ (ii) $40:48$ (iii) $50:60$ (iv) $60:72$

29. The ages of A and B are in the ratio 9 : 10. 8 years ago, their ages were in the ratio 8 : 9. Find their present ages.

(i) $63:70$ (ii) $54:60$ (iii) $72:80$ (iv) $90:100$

30. The ratio of males to females in a committee of 171 members is 4 : 5. How many more ladies should be added to the committee so that the ratio of males to females is 76 : 155?

(i) 57 (ii) 61 (iii) 59 (iv) 60 (v) 63

Assignment Key

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