EduSahara™ Learning Center Assignment

Grade : Class VIII, SSC
Chapter : Linear Equations in One Variable
Name : Word Problems on Linear Equations
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1. A man reduces his weight in the ratio $19 : 10$.
What is his weight now, if originally he was 89 kg ?
(i) $\frac{890}{19}$ kg (ii) $\frac{928}{19}$ kg (iii) $\frac{892}{19}$ kg (iv) $\frac{891}{19}$ kg (v) $\frac{909}{19}$ kg

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2. A certain amount has been divided into two parts in the ratio $9 : 5$.
If the first part is 189 , find the total amount
(i) 296 (ii) 293 (iii) 291 (iv) 295 (v) 294

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3. A bag contains ₹715 in the form of five-rupee, two-rupee and one-rupee coins in the ratio 9 : 6 : 8 .
Find the number of coins of each type
(i) 97 , 71 , 88 (ii) 100 , 71 , 83 (iii) 98 , 66 , 93
(iv) 99 , 66 , 88 (v) 101 , 61 , 88

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4. In an examination, the ratio of passes to failures was 5 : 3.
Had 140 less appeared and 15 less passed, the ratio of passes to failures would have been 67 : 17.
How many students appeared for the examination?
(i) 560 (ii) 570 (iii) 555 (iv) 565 (v) 550

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5. In a company, the number of engineers to managers is in the ratio 6 : 5 . After a year, when 15 engineers and 20 managers left, the ratio between engineers to managers is 5 : 4 . Find the number of engineers and managers at the beginning?
(i) 460 (ii) 450 (iii) 430 (iv) 420 (v) 440

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

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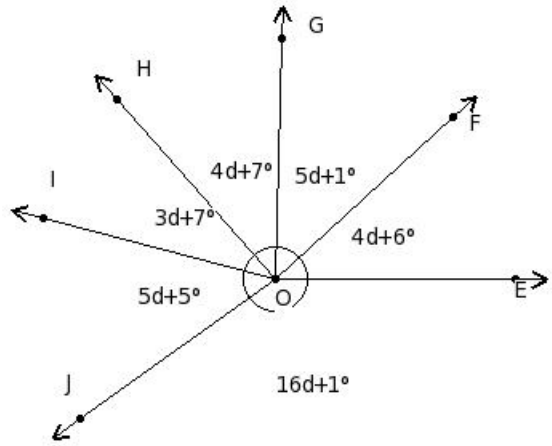

(i) 9 (ii) 6 (iii) 8 (iv) 11 (v) 10

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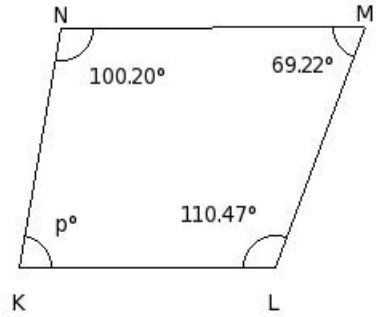
7. Find the missing angle in the given quadrilateral



(i) 110.1° (ii) 80.1° (iii) 90.1° (iv) 85.1° (v) 95.1°

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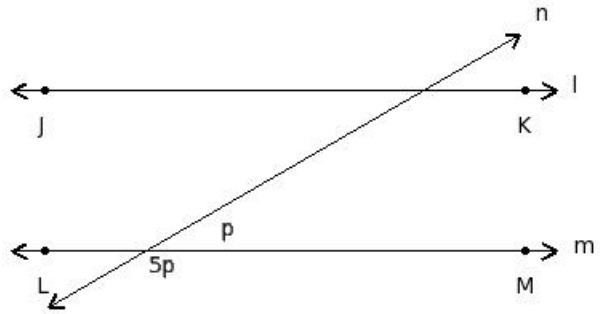
8. In the given figure l||m. Find the value of 'p'



(i) 30 (ii) 33 (iii) 29 (iv) 31 (v) 28

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9. The work done by (12x + 1) men in (x) days and work done by (x + 1) men in (35x) days is in the ratio of 5 : 21 . Find the value of x

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

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10. Two numbers are in the ratio $5 : 4$ and their difference is 25 . Find the numbers

(i) 125,103 (ii) 124,100 (iii) 125,97 (iv) 126,100 (v) 125,100

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11. The sides of a triangle are in the ratio $\frac{1}{2} : \frac{1}{5} : \frac{1}{8}$ and its perimeter is 660 cm . Find the lengths of the sides of the triangle

(i) 405 cm : 155 cm : 100 cm (ii) 400 cm : 160 cm : 100 cm

(iii) 395 cm : 160 cm : 105 cm (iv) 395 cm : 165 cm : 100 cm

(v) 405 cm : 160 cm : 95 cm

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12. An office contains 266 employees of 4 types. The managers, team leaders, developers and testers are in the ratio 3 : 7 : 3 : 1. The number of managers in the office =

(i) 57 (ii) 59 (iii) 58 (iv) 55 (v) 56

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13. The speed of a motor boat is 7.36 m/sec and the speed of a stream is 2.36 m/sec. A & B are two location adjacent to a stream. If it takes 691.48 sec to go from point A to B and come back, What is the distance between A and B?

(i) 2281.01 mt (ii) 2283.01 mt (iii) 2282.01 mt (iv) 2284.01 mt (v) 2285.01 mt

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14. A student walks from his house to school at 1.75 kmph and arrives 1.10 min. late. The next day he walks at 1.94 kmph and reaches the school 4.40 min. before time. What is the distance from his house to school?

(i) 0.61 km (ii) 9.61 km (iii) 1.61 km (iv) 3.61 km (v) 2.61 km

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15. A train crosses a telegraph post in 28.63 sec and a bridge 1536.88 mt long in 60.87 sec. What is the length of the train?

(i) 1365.79 mt (ii) 1364.79 mt (iii) 1366.79 mt (iv) 1362.79 mt (v) 1363.79 mt

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16. A train crosses a telegraph post in 11.97 sec and a bridge 1254.95 mt long in 38.34 sec. What is the speed of the train?

(i) 48.59 m/sec (ii) 49.59 m/sec (iii) 47.59 m/sec (iv) 45.59 m/sec (v) 46.59 m/sec

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17. A can do a work in 7 days . With the help of B, A can do the same work in $2\frac{1}{10}$ days . In how many days can B alone do the work?

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

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18. Due to a leak at the bottom, pipe Y takes $6\frac{1}{4}$ hrs to fill the tank.
The leak alone can empty the full tank in 25 hrs
In what time can pipe Y alone fill the tank when the leak is closed?

(i) 3 hrs (ii) 4 hrs (iii) 8 hrs (iv) 5 hrs (v) 6 hrs

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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 4 days and 5 days respectively,
in how many days can B alone do the work?

(i) 1 day (ii) 6 days (iii) 4 days (iv) 3 days (v) 5 days

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20. A and B together can do a piece of work in $2\frac{11}{12}$ hrs .
They work together for 1 hr and then A leaves.
B completes the remaining work in $4\frac{3}{5}$ hrs .
In how much time can each of them do the work seperately?

(i) (4 hrs , 7 hrs) (ii) (6 hrs , 7 hrs) (iii) (5 hrs , 6 hrs)
(iv) (5 hrs , 8 hrs) (v) (5 hrs , 7 hrs)

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21. A and B together can do a piece of work in $2\frac{1}{2}$ days .
They work together for 1 day and then A leaves.
B completes the remaining work in 3 days .
In how much time can each of them do the work seperately?

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

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

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(i) 12 hrs (ii) 11 hrs (iii) 13 hrs (iv) 14 hrs (v) 9 hrs

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23. What number must be added to each term of the ratio 10 : 90 to make it 9 : 13 ?

(i) 170 (ii) 168 (iii) 169 (iv) 171 (v) 172

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24. A ratio is equal to 1 : 5 . If its antecendent is 2541 , what is its consequent?

(i) 12704 (ii) 12705 (iii) 12708 (iv) 12702 (v) 12706

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25. A ratio is equal to 1 : 1 . If its consequent is 2625 , what is its antecendent?

(i) 2627 (ii) 2625 (iii) 2624 (iv) 2623 (v) 2626

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26. Two numbers are in the ratio 5 : 12 . If 18 is added to each number, the ratio becomes 83 : 174 . Find the numbers

(i) 55 : 132 (ii) 70 : 168 (iii) 75 : 180

(iv) 60 : 144 (v) 65 : 156

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27. The ratio of two numbers is 4 : 5 and their LCM is 260 . Find the numbers ?

(i) 48 : 60 (ii) 52 : 65 (iii) 56 : 70 (iv) 60 : 75 (v) 44 : 55

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28. The ages of A and B are in the ratio 7 : 6. 10 years hence, their ages will be in the ratio 8 : 7. Find their present ages

(i) 70 : 60 (ii) 84 : 72 (iii) 63 : 54 (iv) 56 : 48

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29. The ages of A and B are in the ratio 7 : 6. 8 years ago, their ages were in the ratio 6 : 5. Find their present ages

(i) 70 : 60 (ii) 49 : 42 (iii) 56 : 48 (iv) 42 : 36

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30. The ratio of males to females in a committee of 98 members is 6 : 1 . How many more ladies be added to the committee so that the ratio of males to females is 21 : 16 ?

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(i) 51 (ii) 48 (iii) 50 (iv) 53 (v) 49

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Assignment Key

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

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