EduSahara™ Learning Center Assignment

Grade : Class VIII, ICSE
Chapter : Simple Linear Equations
Name : Word Problems on Linear Equations
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1. A student walks from his house to school at 3.80 kmph and arrives 22.50 min. late. The next day he walks at 11.90 kmph and reaches the school 3.30 min. before time. What is the distance from his house to school?

(i) 4.40 km (ii) 0.40 km (iii) 1.40 km (iv) 2.40 km (v) 3.40 km

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2. A student walks from his house to school at 1.50 kmph and arrives 1.30 min. late. The next day he walks at 3.45 kmph and reaches the school 30.00 min. before time. At what speed must he travel to reach the school on time?

(i) 9.54 kmph (ii) 1.54 kmph (iii) 3.54 kmph (iv) 2.54 kmph (v) 0.54 kmph

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3. A train crosses a telegraph post in 40.76 sec and a bridge 599.53 mt long in 60.96 sec. What is the length of the train?

(i) 1210.76 mt (ii) 1209.76 mt (iii) 1207.76 mt (iv) 1208.76 mt (v) 1211.76 mt

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4. A train crosses a telegraph post in 14.90 sec and a bridge 1942.35 mt long in 60.84 sec. What is the speed of the train?

(i) 41.28 m/sec (ii) 43.28 m/sec (iii) 40.28 m/sec (iv) 42.28 m/sec (v) 44.28 m/sec

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A certain number of men can do a work in 24 days .

5. If there were 20 men more , it would take 16 days less to complete the work.

How many men are required to complete the work in 12 days ?

(i) 21 (ii) 20 (iii) 23 (iv) 18 (v) 19

Person P is six times as good a workman as Person Q.

6. They can do a work together in 6 days .

In how many days Q alone can do the work?

(i) 44 days (ii) 43 days (iii) 42 days (iv) 40 days (v) 41 days

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7. What number must be added to each term of the ratio
234 : 342 to make it 25 : 31 ?

(i) 213 (ii) 216 (iii) 217 (iv) 218 (v) 215

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8. A ratio is equal to $13 : 15$. If its antecendent is 910 , what is its consequent?

(i) 1050 (ii) 1053 (iii) 1051 (iv) 1049 (v) 1048

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9. A ratio is equal to $1 : 1$. If its consequent is 3500 , what is its antecendent?

(i) 3497 (ii) 3499 (iii) 3500 (iv) 3503 (v) 3501

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10. Two numbers are in the ratio $6 : 7$. If 10 is added to each number, the ratio becomes $7 : 8$. Find the numbers

(i) $66 : 77$ (ii) $72 : 84$ (iii) $60 : 70$

(iv) $48 : 56$ (v) $54 : 63$

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11. The ratio of two numbers is $2 : 4$ and their LCM is 36 . Find the numbers ?

(i) $22 : 44$ (ii) $16 : 32$ (iii) $18 : 36$ (iv) $14 : 28$ (v) $20 : 40$

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12. Find the number which bears the same ratio to $\frac{1}{6}$ that $\frac{4}{9}$ does to $\frac{2}{9}$

(i) $\frac{1}{3}$ (ii) 1 (iii) $(\frac{-1}{3})$ (iv) $\frac{1}{5}$

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13. The ages of A and B are in the ratio 4 : 3. 5 years hence, their ages will be in the ratio 9 : 7. Find their present ages

(i) $32 : 24$ (ii) $48 : 36$ (iii) $36 : 27$ (iv) $40 : 30$

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14. The ages of A and B are in the ratio 5 : 9. 6 years ago, their ages were in the ratio 1 : 2. Find their present ages

(i) $20 : 36$ (ii) $25 : 45$ (iii) $30 : 54$ (iv) $40 : 72$

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15. In a mixture of 384 litres, the ratio of milk and water is $17 : 7$. How much water must be added to this mixture to make the ratio $34 : 23$?

(i) 69 (ii) 72 (iii) 73 (iv) 71 (v) 74

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16. The ratio of males to females in a committee of 560 members is $16 : 19$. How many more ladies be added to the committee so that the ratio of males to females is $128 : 177$?

(i) 52 (ii) 50 (iii) 47 (iv) 49 (v) 51

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17. In an examination, the ratio of passes to failures was 8 : 7.

Had 205 less appeared and 10 less passed, the ratio of passes to failures would have been 46 : 3.

How many students appeared for the examination?

(i) 445 (ii) 450 (iii) 455 (iv) 440 (v) 460

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18. In a company, the number of engineers to managers is in the ratio 8 : 5 . After a year, when 20 engineers and 20 managers left, the ratio between engineers to managers is 5 : 3 . Find the number of engineers and managers at the beginning?

(i) 530 (ii) 510 (iii) 540 (iv) 500 (v) 520

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19. Two angles of a triangle measure 54° and 65° respectively. Find the measure of the third angle of the triangle

(i) 63° (ii) 60° (iii) 59° (iv) 62° (v) 61°

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20. The angles of a triangle ABC are in the ratio 10 : 8 : 12. Find the measure of each angle of the triangle

(i) A = 60° , B = 46° , C = 74°

(ii) A = 60° , B = 48° , C = 72°

(iii) A = 58° , B = 48° , C = 74°

(iv) A = 62° , B = 48° , C = 70°

(v) A = 58° , B = 50° , C = 72°

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21. In $\triangle BCD$, if $\angle B = 55°$ and $\angle C = 63°$, find the measure of $\angle D$

(i) D = 61° (ii) D = 64° (iii) D = 62° (iv) D = 60° (v) D = 63°

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22. In $\triangle DEF$, if $\angle D = 30°$ and $\angle E = \angle F$, find the measure of each of the equal angles of the triangle

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

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23. One angle of a triangle measures 20° and the other two angles are in the ratio 5 : 11. Find these angles.

(i) B = 48° , C = 108°

(ii) B = 50° , C = 110°

(iii) B = 52° , C = 112°

(iv) B = 51° , C = 111°

(v) B = 49° , C = 109°

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24. In a right-angled triangle, the two acute angles are in the ratio 2 : 1. Find these angles.

(i) A = 59°, C = 29°

(ii) A = 60°, C = 30°

(iii) A = 61°, C = 31°

(iv) A = 62°, C = 32°

(v) A = 58°, C = 28°

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25. The speed of a motor boat is 15.15 m/sec and the speed of a stream is 2.53 m/sec. A & B are two location adjacent to a stream. If it takes 137.29 sec to go from point A to B and come back, What is the distance between A and B?

(i) 1012.97 mt (ii) 1011.97 mt (iii) 1008.97 mt (iv) 1009.97 mt (v) 1010.97 mt

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Assignment Key

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2) (ii)
3) (ii)
4) (iv)
5) (ii)
6) (iii)
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17) (ii)
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19) (v)
20) (ii)
21) (iii)
22) (iv)
23) (ii)
24) (ii)
25) (v)