

Linear Equation in One Variable (Set4)

1. My age is four times the difference of my age four years and my age three years back. How old I am?
2. A number whose fifth part increased by 5 is equal to its fourth part diminished by 5. Find the number.
3. A number consists of two digits whose sum is 9. If 27 is subtracted from the number, its digits are reversed. Find the number.
4. The sum of two numbers is 45 and their ratio is 7:8. Find the numbers.
5. A man sold an article for Rs. 495 and gained 10% on it. Find the cost price of the article.
6. Two numbers are such that the ratio between them is 3:5. If each is increased by 10, the ratio between the new numbers so formed is 5:7. Find the original number.
7. How much pure alcohol be added to 400 ml of a 15% solution to make its strength 32%.
8. Sum of two-digit numbers is 2490. If 6.5% of one number is equal to 8.5% of the other Find the Numbers.
9. Divide Rs. 1380 among Ahmed, John and Babita so that the amount Ahmed receives is 5 times as much as Babita's share and is 3 times as much as John's share. Find the amount of their shares.
10. There are 90 multiple choice questions in a test. Suppose you get two marks for every correct answer and for every questions you leave unattempt or answer wrongly, one mark is deducted from your total score of correct answers. If you get 60 marks in the test, then how many questions did you answer correctly?
11. Hamid has three boxes of different fruits. Box A weights $2\frac{1}{2}$ kg more than Box B and Box C weights $10\frac{1}{4}$ kg more than Box B. If the total weight of the boxes is $48\frac{3}{4}$ kg. How many kg does Box A weight?
12. Three prizes are given in a quiz contest. The value of 2nd prize is five-sixth the value of the first prize and the value of the third prize is four-fifths that of the second prize. If the total value of three prizes is Rs. 150, find the value of each prize.
13. 50 Kg of an alloy of lead and tin contains 60% lead. How much lead much be melted into it to make an alloy containing 75% lead?
14. The length of a rectangle exceeds its breadth by 4 cm. If the length and breadth are each increased by 3 cm, the area of the new rectangle will be 81 cm^2 more than that of the given rectangle. Find the length and breadth of a given rectangle.
15. An altitude of a triangle is five-thirds the length of its corresponding base. If the altitude were increased by 4 cm and the base be decreased by 2 cm, the area of the triangle would remain the same. Find the base and the altitude of the triangle.

Answer

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| 1. 28 years. | 11. $14\frac{1}{2}$ kg |
| 2. 200 | 12. 1 st prize= Rs. 60, 2 nd Prize=Rs.50 and 3 rd Prize= Rs. 40 |
| 3. 63 | 13. 30 Kg |
| 4. 21 and 24 | 14. Length = 14 cm and Breadth = 140 cm |
| 5. Rs. 450 | 15. Base=12 cm and Altitude=20 cm |
| 6. 15, 25 | |
| 7. 100 ml. | |
| 8. 1411, 1079 | |
| 9. Babita: Rs. 180, Ahmed= Rs. 900 and John = Rs. 300 | |
| 10. 50 | |