

Aptitude Assignment 2

1. What quantity of water should be added to the milk water mixture so that the milk water ratio changes from 2:3 to 4:11. The quantity of milk in the mixture is 40 liters?
2. Linear equation $2x+3y=0$ meets the x & y-axis at the point?
3. a & b are positive integers such that $a^2-b=19$. Find a & b?
4. Find $a^3+b^3+c^3+3abc$, where $a+b+c=5$ & , $a^2+b^2+c^2=10$?
5. Sum of two, two-digit numbers is a perfect square. The digits of the first two-digit number are two consecutive positive integers; also, when the digits of the first number are reversed, the second number is formed. Find these numbers & the square root of their sum.

ANSWERS:-

- 1) 50 liters of water should be added to the milk-water mixture in order to change the milk-water from 2:3 to 4:11, given that the quantity of milk in the mixture is 40 liters.
- 2) Both the x-axis and y-axis intersections of the equation $2x + 3y = 0$ occur at the origin (0,0).
- 3) The positive integer values of a and b are $a=5$ and $b=6$.
- 4) The $a^3+b^3+c^3+3abc=50$.
- 5) The two numbers are 45 and 54, the square root of their sum is 9.949.