1. Write two quadratic equations such that the sum of roots equals twice the product of roots?

Solution : two quadratic equations that satisfy the condition where the sum of the roots equals twice the product of the roots are:

1. 2x^2 - 2x - 2 = 0
2. x^2 - 2x - 4 = 0
3. 2x+3y=12 has (2,3) as its solution or not?

Solution : (2, 3) is not a solution to the equation 2x + 3y = 12.

1. Find possible coordinates of (x,y) such that point (1,1), (2,2) & (x,y) are collinear?

Solution : the possible coordinates (x, y) are of the form (a, a), where a can be any real number.

For example: (1, 1) (2, 2) (3, 3) (-1, -1) (0, 0)

1. Find out all possible values of a & b for which the ratio of a^3+b^3 to a^3-b^3 is 1:1 a,b are real numbers.

Solution: the possible values of a and b that satisfy the given condition are: a can be any real number. b must be 0 (b = 0).

1. The triangle area formed by the lines y=x, y-axis and y=3 line will be?

Solution: the area of the triangle formed by the lines y = x, y-axis, and y = 3 is 0.