A Quadratic Approach for Generating Pythagorean Triples

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Abstract : The article explores one of the important relations between numbers-the Pythagorean triples (triplets) which finds its application in distance measurement, construction of roads, towers, buildings and wherever Pythagoras theorem finds its application. The Pythagorean triples are numbers, that satisfy the condition “In a given set of three natural numbers, the sum of squares of two natural numbers is equal to the square of the other natural number”. There are numerous methods and equations to obtain the triplets, which have their own merits and demerits. Here, quadratic approach for generating triples uses the hypotenuse leg difference method. The advantage is that variables are few and finally only three independent variables are present.