Abstract

In this paper we investigate families of primitive Pythagorean triples of the form \((a, b, c)\), where \(mc - nb = t\), \(mc - na = t\), or \(mb - na = t\) for some fixed positive coprime integers \(m\) and \(n\), and \(t\) a fixed nonzero integer. A few of these cases are especially interesting since the solutions may be simply written in terms of Fibonacci and Lucas numbers.