

Title: On binomial Thue equations and ternary equations with S-unit coefficients

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In this paper we obtain some new results for a collection of equations of the form (2) $Ax^n - By^n = \pm 1$ resp. (3) $Ax^n - By^n = z^m$ with $m \in \{3, n\}$, where x, y, z, A, B, n are unknown nonzero integers such that $n \geq 3$ is a prime and AB is composed of two fixed primes. We prove among other things that under certain conditions formulated in Section 2, equations (3) have no solutions with |xy| > 1, Ax, By and z coprime and n > 13 (cf. Theorems 2 to 4). Combining this with some other results and techniques, we establish a similar result for equations (2) (cf. Theorem 1).

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