A. Schinzel On divisibility by $\frac{a^k - b^k}{a - b}$, Fibonacci Quart. **51** (2013), no. 1, 72–77

Abstract

The recent result of F. Luca on divisibility by $g^k - 1$ is extended to divisibility by $(a^k - b^k)/(a - b)$, where a > b are positive integers.