Title: On the exponential Diophantine equation $(a^n - 1)(b^n - 1) = x^2$

Author(s): Katsumasa Ishii

Let a and b be two distinct fixed positive integers such that $\min(a, b) > 1$. We give a necessary and sufficient condition for Diophantine equation $(a^n - 1)(b^n - 1) = x^2$ with $a \equiv 5 \pmod 6$ and $b \equiv 0 \pmod 3$ to have positive integer solutions.

Address:
Katsumasa Ishii
6-3-201, Miyasaka 2-chome
Setagaya-ku
Tokyo, 156-0051
Japan