Publicationes Mathematicae Debrecen Year: 2024 Vol.: 104 Fasc.: 1-2 Title: On the representation of an exponential type sequence Author(s): Wang-Xing Yu Let p, q > 1 be integers with (p, q) = 1. In 1959, Birch proved that every sufficiently large integer n can be represented as a sum of distinct integers of the form $p^{\alpha}q^{\beta}$. In this paper, we shall prove that for any real number $\varepsilon > 0$, there is a positive real number $c = c(p, q, \varepsilon)$ such that every sufficiently large integer n can be represented as a sum of distinct integers of the form $p^{\alpha}q^{\beta}$, all of which are greater than $\frac{cn}{(\log n)^{1+\varepsilon}}$. Address: Wang-Xing Yu School of Mathematical Sciences and Institute of Mathematics

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