Abstract of paper [1].

We study the distribution of the values of the form $\lambda_1 p_1 + \lambda_2 p_2 + \lambda_3 p_3^k$, where $\lambda_1$, $\lambda_2$ and $\lambda_3$ are non-zero real numbers not all of the same sign, with $\lambda_1 / \lambda_2$ irrational, and $p_1$, $p_2$ and $p_3$ are prime numbers. We prove that, when $1 < k < 4/3$, these value approximate rather closely any prescribed real number.

References