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Title: Rational points with large denominator on Erdős–Selfridge superelliptic curves

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In 2016, Bennett and Siksek showed that if the Erdős–Selfridge curve

$$(x+1)\cdots(x+k) = y^{\ell}, \quad k \geq 3,\ \ell \text{ prime},$$

has a rational solution in x and y, then $\ell \leq e^{3^k}$. In this paper, we show that if there exists a positive rational solution on the above curve, then either the denominator of the solution is large or $\ell \leq k$.

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