On the Diophantine Equation
\[ n(n + d) \cdots (n + (k - 1)d) = by^l \]

Dedicated to Professor P. Ribenboim on the occasion of his 75th birthday

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Abstract. We show that the product of four or five consecutive positive terms in arithmetic progression can never be a perfect power whenever the initial term is coprime to the common difference of the arithmetic progression. This is a generalization of the results of Euler and Obláth for the case of squares, and an extension of a theorem of Győry on three terms in arithmetic progressions. Several other results concerning the integral solutions of the equation of the title are also obtained. We extend results of Sander on the rational solutions of the equation in \( n, y \) when \( b = d = 1 \). We show that there are only finitely many solutions in \( n, d, b, y \) when \( k \geq 3, l \geq 2 \) are fixed and \( k + l > 6 \).