Publications Mathematicae Debrecen | **Year: 2023** | **Vol.: 103** | **Fasc.: 1-2**

Title: On the equation $F(n^3) = F(n^3 - 1) + D$ and some conjectures

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We prove that if the complex number D and the completely multiplicative function F satisfy the equation $F(n^3) = F(n^3 - 1) + D$ for every positive integer $n > 1$, then F is the identity function if $D \neq 0$. In the case $D = 0$, there are two solutions F. We also state three conjectures and prove some partial results.

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