



SOME PROPERTIES OF REGULAR INTEGERS MODULO n

Brăduț Apostol

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Abstract

Denoting by $V(n)$ the number of regular integers $(\text{mod } n)$, we study properties of the sequences $\left(\frac{V(n+1)}{V(n)}\right)_{n \geq 1}$ and $(V(n+1) - V(n))_{n \geq 1}$. We also prove that the sets $\left\{\frac{\Psi(n)}{V(n)} : n \geq 1\right\}$ and $\left\{\frac{V(n)}{\Phi(n)} : n \geq 1\right\}$ are everywhere dense in $(1, +\infty)$.

Keywords and phrases: regular integers $(\text{mod } n)$, inequalities, density problems.

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