

On a conjecture of Pomerance

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(Submitted on 26 Jul 2011)

We say that k is a P-integer if the first $\phi(k)$ primes coprime to k form a reduced residue system modulo k . In 1980 Pomerance proved the finiteness of the set of P-integers and conjectured that 30 is the largest P-integer. We prove the conjecture assuming the Riemann Hypothesis. We further prove that there is no P-integer between 30 and 10^{11} and none above 10^{3500} .

Comments: 10 pages. Submitted to Acta Arithmetica

Subjects: **Number Theory (math.NT)**

MSC classes: 11N13

Cite as: **arXiv:1107.5191 [math.NT]**(or **arXiv:1107.5191v1 [math.NT]** for this version)

Submission history

From: Rob Tijdeman [[view email](#)]

[v1] Tue, 26 Jul 2011 12:15:25 GMT (7kb)

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