On $p2^n$ blocker conjecture and $R2$ function

Misha Bucko

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This paper covers a conjecture concerning the character of $p2^n$ for prime p, $n \in N$.

1 Definitions

Definition 1. For natural $n > 1$, we have: $n = \prod_{i=1}^{i=k} p_i{}^{e_i}$.$\mu$ function is defined as $\Omega(n) = \sum_{i=1}^{i=k} e_i$. From definition we have: $\forall x, y \in N \Omega(xy) = \Omega(x) + \Omega(y)$ and $\forall x, y \in N \Omega(x^y) = y\Omega(x)$.

Definition 2. Ξ matrix is the matrix where each row contains all the numbers $i \in N$-th column contains all consecutive numbers n of $\Omega(n) = i$.

$$\Xi = \begin{bmatrix} 2 & 4 & 8 & 16 & ... & 2^k \\ 3 & 6 & 12 & 24 & ... & 3 * 2^{k-1} \\ 5 & 9 & 18 & 36 & ... & 5\delta(k-1) + 9 * 2^{(k-2)} \\ 7 & 10 & 20 & 40 & ... & 7\delta(k-1) + 10 * 2^{(k-2)} \\ ... & ... & ... & ... & ... & ... \\ \end{bmatrix}$$

Definition 3. From Ξ matrix, one can find R-sequence, ie. sequence r(n)=3,9,10,27,28,30,.. such that $\forall x \in N \exists n x = r(n), m \in N : \forall z \in N \Xi[n + z, m] = 2\Xi[n + z - 1, m]$

Definition 4. $\forall_p R2(p) = n$ such that $p2^n$ is a blocker.

2 $p2^n$ Blocker Conjecture

$\forall_p \exists_{n \in N} p2^n$ is a blocker and there is exactly only one such n.

3 References

[1] Misha Bucko, http://mishabucko.wordpress.com