A new conjecture on sequence of consecutive natural numbers

Nguyen Van Quang

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Abstract. *We give a conjecture on sequence of consecutive natural numbers.*

A New conjecture

For any sequence of n consecutive natural number, we can find one and only one number, that is divisible by n. Similarly, for any sequence of 2k + 1 odd consecutive natural numbers, we can find one and only one number that is divisible by n = 2k + 1, a proof is easy.

Another way, problem is that, dose always exist a number that is not divisible by every numbers less than or equal to n in the sequence of n odd consecutive natural number. In this paper, we give a conjecture such as :

In an any sequence of n odd consecutive natural numbers, there are at least 2 numbers that are not divisible by every numbers less than or equal to n.

For example:

- A sequence of 5 odd consecutive natural numbers as: 91, 93, 95, 97, 99. Two numbers 91 and 97 are not divisible by any number less than or equal to 5 (2, 3, 4, 5).
- A sequense of 7 odd consecutive natural numbers as: 15! + 3, 15! + 5, 15! + 7, 15! + 9, 15! + 11, 15! + 13, 15! + 15. Two numbers 15! + 11 and 15! + 13 are not divisible by any number less than or equal to 7.

Since a sequence of 2n natural numbers contains a sequence of n odd natural number, in another words:

In any sequence of 2n consecutive natural numbers, there are at least 2 numbers that are not divisible by every numbers less than or equal to n.

References

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quangnhu67@yahoo.com.vn
Nguyenvquang67@gmail.com