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SYNOPSIS

The author presents and proves a new inequality that turns out to offer an alternative approach to solving a large class of inequalities. When applicable, the method allows reducing a symmetric inequality with three variables to an inequality in just **one** variable.

Enjoy!

This month's "free sample" is:

3311. *Proposed by Michel Bataille, Rouen, France.*

Let n be an integer with $n \geq 2$. Suppose that for $k = 0, 1, \dots, n-2$ we have

$$\binom{n-2}{k} \equiv (-1)^k(k+1) \pmod{n}.$$

Show that n is a prime.

. . . .

3311. *Proposé par Michel Bataille, Rouen, France.*

Soit n un entier avec $n \geq 2$. On suppose que pour $k = 0, 1, \dots, n-2$ on a

$$\binom{n-2}{k} \equiv (-1)^k(k+1) \pmod{n}.$$

Montrer que n est un nombre premier.