Problema săptămânii 310

Fie $a, b, c \in [1, \infty)$. Demonstraţi că

$$(2a - 1)(2b - 1)(2c - 1) \geq 2abc - 1.$$

Problem of the week no. 310

If $a, b, c \in [1, \infty)$, prove that

$$(2a - 1)(2b - 1)(2c - 1) \geq 2abc - 1.$$