On Edwards–Child's inequality

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ABSTRACT.

In this paper, by making use of one of Chen's theorems and the method of mathematical analysis with the computer software Maple (Version 9.0), we refine Edwards–Child's inequality and solve the conjecture $\sqrt{3}\,p \geqq 10r - r\left(\frac{2r}{R}\right)^5$ involving the semi-perimeter p, the circumradius R and the inradius r of the triangle, which was posed by Liu.

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