SYNOPSIS

305 Editorial Shawn Godin

306 Mathematical Mayhem Shawn Godin
Solutions to Mayhem problems M501–M506 are presented.

314 The Contest Corner: No. 8 Shawn Godin

316 The Olympiad Corner: No. 306 Nicolae Strungaru

316 The Olympiad Corner Problems: OC96–OC100

317 The Olympiad Corner Solutions: OC36–OC40

325 Book Reviews Amar Sodhi

325 La Balade de la Médiane et le Théorème de Pythagorон
par Jean-Claude Pont

326 A Mathematician Comes of Age
by Steven G. Krantz

328 Problem Solver’s Toolkit: No. 2 Shawn Godin

This new column will focus on theorems and methods that will be useful to problem solvers. The second entry explores counting techniques.

331 Recurring Crux Configurations 8: J. Chris Fisher

In this penultimate entry to a nine part series, problem editor J. Chris Fisher examines problems that have appeared in Crux that involve Heronian triangles.
This month’s “free sample” is:

**3773. Proposed by Michel Bataille, Rouen, France.**

Soit respectivement $R$ et $r$ les rayons des cercles circonscrit et inscrit d’un triangle de côtés $a$, $b$, $c$. Sous quelle condition sur les angles du triangle l’inégalité
\[ a + b + c \leq 2\sqrt{3}(R + r) \]
est-elle respectée?

**3773. Proposed by Michel Bataille, Rouen, France.**

Let $R$ and $r$ be the circumradius and the inradius of a triangle with sides $a$, $b$, $c$. Under which condition on the angles of the triangle does the inequality
\[ a + b + c \leq 2\sqrt{3}(R + r) \]
hold?