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SYNOPSIS

257 Skoliad: No. 103  Robert Bilinski
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   - Questions d’Équipe du Concours Régional de Mathématiques Secondaire (2005)
   - solutions to the 2006 Maritime Mathematics Contest

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   Featuring the Thain Mathematical Olympiad 2003, Selected Problems; the 25th Albanian Mathematical Olympiad for High Schools, Tests 1 and 2; the 44th Ukrainian Mathematical Olympiad, 11th Form, Final Round; and readers’ solutions to some of the problems from
   - the Belarus Mathematical Olympiad 2003;
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292 Book Review  John Grant McLoughlin
   292 King of Infinite Space—Donald Coxeter, the Man Who Saved Geometry
       by Siobhan Roberts
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On a Theorem of Erdős Concerning Additive Functions

by José Luis Ansorena and Juan Luis Varona

From the abstract:

Erdős proved that every increasing additive function must be a constant multiple of the logarithmic function. We prove a weaker result that assumes that the function is completely additive. In particular, what this paper does show is how wide the gulf is between additive and completely additive functions: proving the result for completely additive functions is very easy, but Erdős’s proof for merely additive functions required a formidable effort.

Problems: 3221, 3251–3262

This month’s “free sample” is:

3257. Proposed by Bill Sands, University of Calgary, Calgary, AB.

Find the number of ordered pairs \((A, B)\) of subsets of \(\{1, 2, \ldots, 13\}\) such that \(|A \cup B|\) is even.

3257. Proposé par Bill Sands, Université de Calgary, Calgary, AB.

Trouver le nombre de paires ordonnées \((A, B)\) de sous-ensembles de \(\{1, 2, \ldots, 13\}\) telles que \(|A \cup B|\) soit pair.

Solutions: 3102, 3137, 3139, 3151–3163