PROBLÈMES

P 844, R 1. In case v = 2 the solution was given by W. Narkiewicz and F. Rayner(1). An algorithm leading to a solution of the problem for every particular value of $v \ge 3$ was given by W. Narkiewicz(2). The case v = 3 was there treated in detail. This algorithm was implemented by F. Rayner(3) who determined the integers in question for all $v \le 107$.

XXVII.2, p. 290

XLVI. 2, p. 204

Letter of February 18, 1983

THEMISTOCLES M. RASSIAS (ATHENS)

P 1284. Is the following true: there is no harmonic homeomorphism of the open unit ball B in R^3 , i.e. there are no harmonic functions f_1 , f_2 , f_3 defined in $B = \{\zeta = (\zeta_1, \zeta_2, \zeta_3): |\zeta| < 1\}$, such that the mapping $\zeta \to (f_1, f_2, f_3)$ is a homeomorphism of B onto all of R^3 ?

⁽¹⁾ W. Narkiewicz and F. Rayner, Distribution of values of $\sigma_2(n)$ in residue classes, Monatshefte für Mathematik 94 (1982), p. 133–141.

⁽²⁾ W. Narkiewicz, Distribution of coefficients of Eisenstein series in residue classes, Acta Arithmetica 43 (1983), p. 83-92.

⁽³⁾ F. Rayner, Weak uniform distribution for divisor functions, to appear.

P 1260, R 1. Professor V. Klee and Dr. P. Krupski have kindly informed us that the theorem, to which the problem pertains (4), has been known since long. It has been stated by K. Menger (5) and proved by F. Alt and G. Beer (6). Another proof follows from a result of I. J. Schoenberg (7). V. Klee has generalized the theorem and answered P 1260 in the negative (8).

⁽⁴⁾ J. Väisälä, Dividing an arc to subarcs with equal chords, this journal 46 (1982), p. 203-204.

⁽⁵⁾ K. Menger, Mathematische Annalen 103 (1930), p. 466-501.

⁽⁶⁾ F. Alt and G. Beer, Ergebnisse eines mathematischen Kolloquiums 6 (1935), p. 7.

⁽⁷⁾ I. J. Schoenberg, Annals of Mathematics 41 (1940), p. 715-720.

⁽⁸⁾ V. Klee, Ratio-sequences of chains in connected metric spaces in: The geometry of metric and linear spaces, Proceedings of the Conference, Michigan State University 1974, Lecture Notes in Mathematics 490, Springer-Verlag, Berling 1975, p. 134 146.

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PROBLÈMES

MARTIN GAVALEC (KOŠICE)

P 1285. Formulé dans la commutation Iterated products of ideals of Borel sets.

Ce fascicule, p. 51

JAN VAN MILL AND EVERT WATTEL (AMSTERDAM)

P 1286. Formulé dans la communication Partitioning spaces in homeomorphic rigid parts.

Ce fascicule, p. 101