

ADDENDUM, THE q -REGULARITY OF
LATTICE POINT PATHS IN R^n

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Theorem 2 of [1] admits the following generalization.

THEOREM 2'. $\rho(Z^n) \leq n - 1, n \geq 4$.

This result settles negatively a conjecture made in [1]. The partition of Z^n verifying Theorem 2' is given by $f \oplus g_1 \oplus g_2$ when $n = 4$, and $f \oplus g_1 \oplus g_2 \oplus g_4 \oplus \cdots \oplus g_{n-1}$ when $n \geq 5$, where the g_i are defined by I, II, and III of [1], and $f: Z^2 \rightarrow Z_2$ is defined by $f(x, y) = g_3(x)$ for $y \equiv 0 \pmod{2}$, $f(x, y) = g_3\tau_3(x) + 1$ for $y \equiv 1 \pmod{4}$, and $f(x, y) = g_3\tau_3(x)$ for $y \equiv 3 \pmod{4}$. While $\rho(Z^4) = 3$, the exact value of $\rho(Z^n)$ for $n \geq 5$ remains open.

REFERENCE

1. J. L. Paul, *The q -regularity of lattice point paths in R^n* , Bull. Amer. Math. Soc. **81** (1975), 492-494.

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