

1106-VQ-2490      **Bernd Sing\*** ([bernd.sing@cavehill.uwi.edu](mailto:bernd.sing@cavehill.uwi.edu)), Department of Mathematics, The University of the West Indies, Cave Hill, P.O. Box 64, Bridgetown, St Michael BB11000, Barbados. *Visibility of Rectangles within the Integer Lattice Points*. Preliminary report.

We say that two distinct integer lattice points  $P$  and  $Q$  of  $\mathbb{Z}^2$  are *mutually visible* if there are no other integer lattice points on the line segment joining  $P$  and  $Q$ . E.g., the origin  $P = (0, 0)$  and any point  $Q = (a, b)$  with  $\gcd(a, b) = 1$  are mutually visible.

We denote the  $r \times s$  rectangle of integer lattice points by  $\Delta_{r \times s}$ , and investigate the following question: What is the smallest possible cardinality of a set  $A$  of integer lattice points not belonging to  $\Delta_{r \times s}$ , such that each  $P \in \Delta_{r \times s}$  is mutually visible by at least one of the lattice points in  $A$ ?

This question was considered in [1]. We report on the progress achieved so far.

[1] J.D. Laison and M. Schick, “Seeing Dots: Visibility of Lattice Points”, *Mathematics Magazine* **80**(4): 274–282 (2007).

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