

SBU Department of Mathematics &
Institute for Mathematical Sciences

Math Club

Joe Mitchell
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Guarding Art Galleries, Patrolling Prisons, Shoveling Snow, and Surveying Planets

A famous problem posed by Victor Klee in the early 1970's is the Art Gallery Problem: How many points ("guards") are sufficient to place within a simple polygon P having n vertices so that every point of P is "seen" by at least one guard? This problem falls into a rich class of computational geometry problems that ask one to optimally cover a domain. We discuss several interesting mathematical and algorithmic questions that arise in this class, both in the case of stationary guards and mobile robotic guards. The problems are simple to state, easy to visualize, but often very challenging to solve.

Wednesday - February 06, 2013
Room Math Tower P-131 1:00 pm

Image courtesy of Wikipedia