## 6.RP Security Camera

## Task

A shop owner wants to prevent shoplifting. He decides to install a security camera on the ceiling of his shop. Below is a picture of the shop floor plan with a square grid. The camera can rotate $360^{\circ}$. The shop owner places the camera at point P, in the corner of the shop.

a. The plan shows where ten people are standing in the shop. They are labeled $A, B, C$, D, E, F, G, H, J, K. Which people cannot be seen by the camera at P?
b. What percentage of the shop is hidden from the camera? Explain or show work.

- $\nabla$ Illustrative Mathematics
c. The shopkeeper has to hang the camera at the corners of the grid. Show the best place for the camera so that it can see as much of the shop as possible. Explain how you know that this is the best place to put the camera.
6.RP Security Camera

Typeset May 4, 2016 at 21:52:41. Licensed by Illustrative Mathematics under a
Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License .

