



Problem of the Week

Problem A

Patio Planning

Jody and Jillian are building a patio beside their house. They have square patio stones that have sides with a length of 50 cm. They have a total 75 patio stones available.

To build the patio, they place the patio stones so that two stones next to each other are touching and their sides are lined up exactly. They will only use whole patio stones and they want the entire patio covered in stones.

- (a) If they want to have their patio in the shape of a square, what are the dimensions of the largest possible patio they can build?
- (b) If they want to build a patio in the shape of a rectangle where the length of one side is twice as long as the length of the other side, what are the dimensions of the largest patio they can build?

