



Problem of the Week

Problem D

It Must be Fair!

Two children share an L-shaped bedroom. They are constantly fighting over space. Their parents decide to temporarily partition the room with a curtain so that each child will have exactly the same area, in the hope that the space arguments will end.

The layout of the room is represented by $ABCDEFGF$ on the diagram. The room has square corners with $EF = 4$ m, $AB = 2$ m, and $AG = GF$. The area of the entire room is 11.2 m². The partitioning curtain is to be hung from point A to a point D on CE to divide the room into two parts of equal area. Where is D located on CE to accomplish the equal area split in order to make things fair?

