

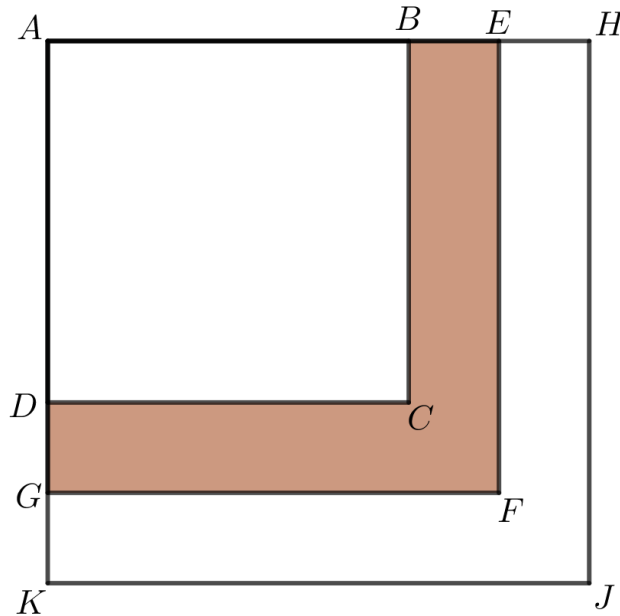


Problem of the Week

Problem E

Three Squares

The three squares $ABCD$, $AEFG$, and $AHJK$ overlap as shown in the diagram.



The side length of each square, in centimetres, is a positive integer. The area of square $AEFG$ that is not covered by square $ABCD$ is 33 cm^2 . That is, the area of the shaded region $BEFGDC$ is 33 cm^2 . If $DG = GK$, determine all possible side lengths of each square.

