The problem:

The floor of a rectangular room is covered with (entire) square tiles. The room is m tiles wide and n tiles long. Half of the tiles are on the edge. For how many room sizes is this possible?​​

​(A) none (B) 1 (C) 2 (D) 3 (E) more than 3 ​

​(Bron: Flemish Mathematics Olympiad volume 1996, 2e round, question 18)​

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