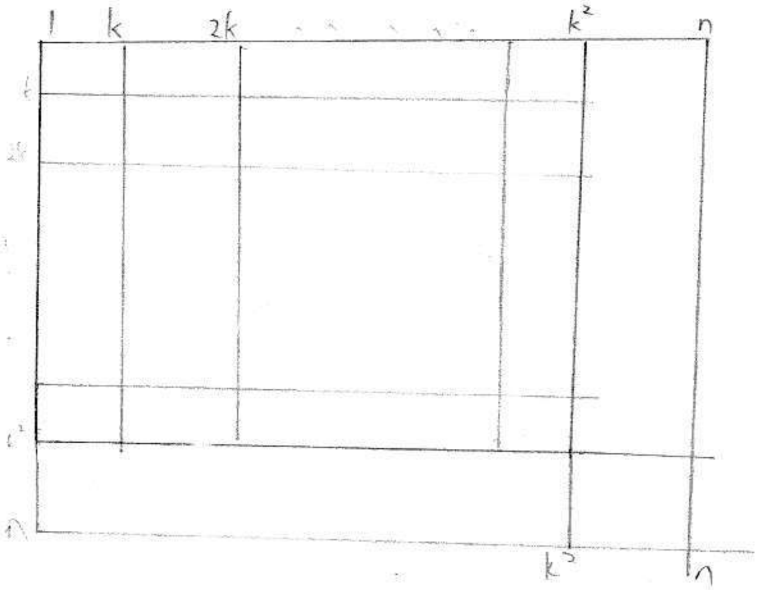
Answer: $\lceil\sqrt{n}\rceil - 1$

First, we show that $k = \lceil\sqrt{n}\rceil - 1$ fits. Suppose that there exists such peaceful configuration, where this k fails. Knowing that $n > k^2$, consider the following:



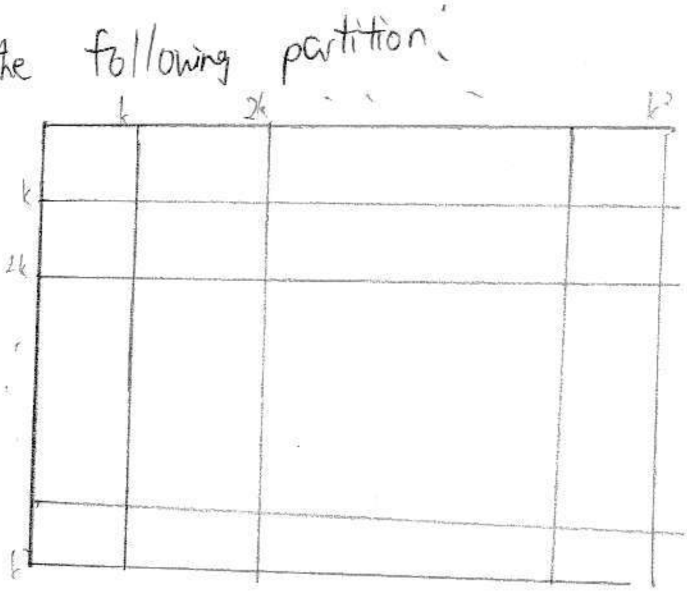
Now, consider the k^2 squares with ~~diagonal vert~~ diagonals $[(a-1)k+1, (b-1)k+1)$ and (ak, bk), $\forall\ 1 \le a, b \le k$. Since every such squares has at least a rook, we know that this $k^2 \times k^2$ square contains at least k^2 rooks. These k^2 rooks all have distinct coordinates, and in the $k^2 \times k^2$ chessboard, hence for each column $1, 2, \ldots, k^2$ and each row $1, 2, \ldots, k^2$ there is exactly a rook. This means, the remaining $n - k^2$ rooks have ~~row~~ row and column number greater than k^2, and there are $n - k^2$ rooks in the square with diagonals at vertices (k^2+1, k^2+1), (n, n).

However, ~~#~~ by ~~rotating~~ rotation, and consider k^2 squares with diagonals $[(a-1)k+1+(n-k^2), (b-1)k+1)$ and $(ak+(n-k^2), bk)$ for $1\leq a,b \leq k$ we know that the square with diagonals $(1, k^2+1)$, $(n-k^2, n)$ has $n-k^2$ rooks too. For $k \geq 2$ (i.e. $n \geq 5$), we know that $n \leq 2k^2$ as $n \leq (k+1)^2-1 = k^2+2k$, so the two squares, ~~each~~ with diagonals (k^2+1, k^2+1), (n, n), and $(1, k^2+1)$, $(n-k^2, n)$ are disjoint, and we get that there are ~~two roo~~ $2(n-k^2)$ rooks in row $k^2+1, k^2+2, \ldots, n$, which is impossible. (For $k=1$, it is obvious that some square doesn't contain a rook).

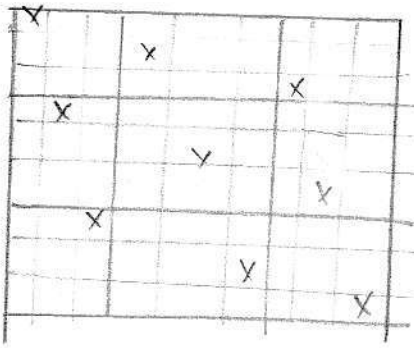
This implies that any k greater than this fails.

Now, we show that $k = \lceil \sqrt{n} \rceil$ fails. It suffices to find one such configuration. Let us start with $n=k^2$.

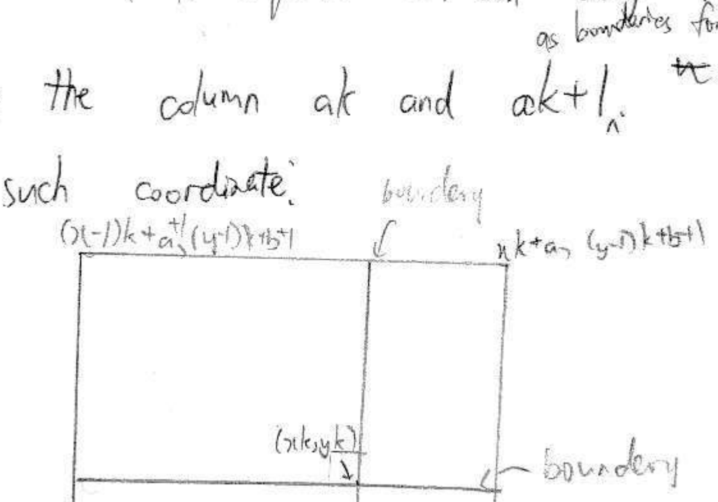
Consider the following partition:



Now, we assign a rook in each $k\times k$ square ~~with~~ by the following; for the square with ~~vertex~~ diagonals $((a-1)k+1, (b-1)k+1)$, (ak, bk), we assign it to $((a-1)k+b, (b-1)k+a)$. This is the example for $k=3$:



Suppose there is a $k\times k$ square without any rook. We denote the line seperating the column ak and $ak+1$ as boundaries for all a. Let the square to have such coordinate:



Since each ~~of~~ of $((x-1)k+y, (y-1)k+x)$, $(xk+y, (y-1)k+x+1)$, $((x-1)k+y+1, yk+x)$, $(xk+y+1, yk+x+1)$ have a rook, ~~if all of~~ we have:

~~if~~ (1) $\rightarrow$ if ~~$a+1\le y$~~ $a\le y$, $b\le x$, then $((x-1)k+y, (y-1)k+x)$ is in the square,

(2) if $a \geq y$, $b \leq x$, then $(xk+y, (y-1)k+x+1)$ is in the square.

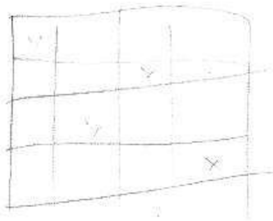
(3) if $a \leq y$, $b \geq x$, then $((x-1)k+y+1, yk+x)$ is in the square.

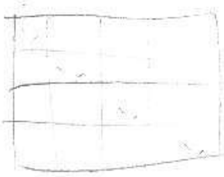
(4) if $a \geq y$, $b \geq x$ then $(xk+y+1, yk+x+1)$ is in the square.

Since any combination of $[a,b]$ falls into one of the four cases above, any $k \times k$ square contains a rook.

Finally, for $n<k^2$, consider the $n \times n$ subgrid with diagonals $(1,1)$ and (n,n) in the $k^2 \times k^2$ board described above, and delete all other squares and rooks not in the $n \times n$ board. and ~~to remove~~ the ~~rook~~ this grid has all its rooks in different columns and rows. Moreover, each $k \times k$ square contains a rook. If there is any rook "missing" we can assign it arbitrarily and the condition still holds.

QED





2 — 1
3 — 1
4 — 1
5 — 2?