Consider the rectangles from Problem 29: those composed of n squares such that the greatest common divisor of all the sidelengths is 1. If rectangles are measured by the longest side, the smallest rectangles are given by $A295753$.

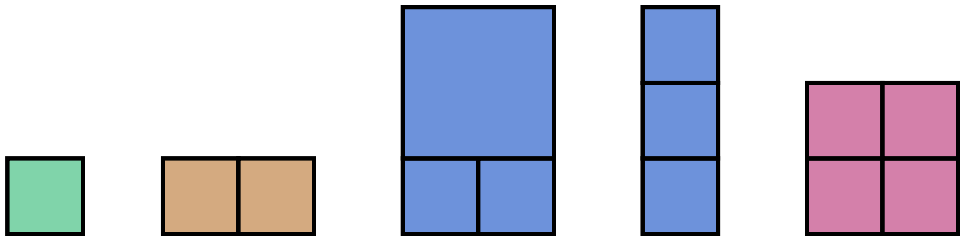

Figure 1: Examples of $a(1) = 1$, $a(2) = 1$, $a(3) = 2$, and $a(4) = 1$.

Question. How many distinct rectangles composed of n squares have a longest side of $A295753(n)$?

Related.

1. Is the largest rectangle (as measured by smallest side) unique for large n?
2. What if smallest rectangle is measured by perimeter?

Note. Largest rectangles might be Fibonacci spirals, or they might be similar to the second example or the examples in the References.

References.

https://en.wikipedia.org/wiki/Squaring_the_square