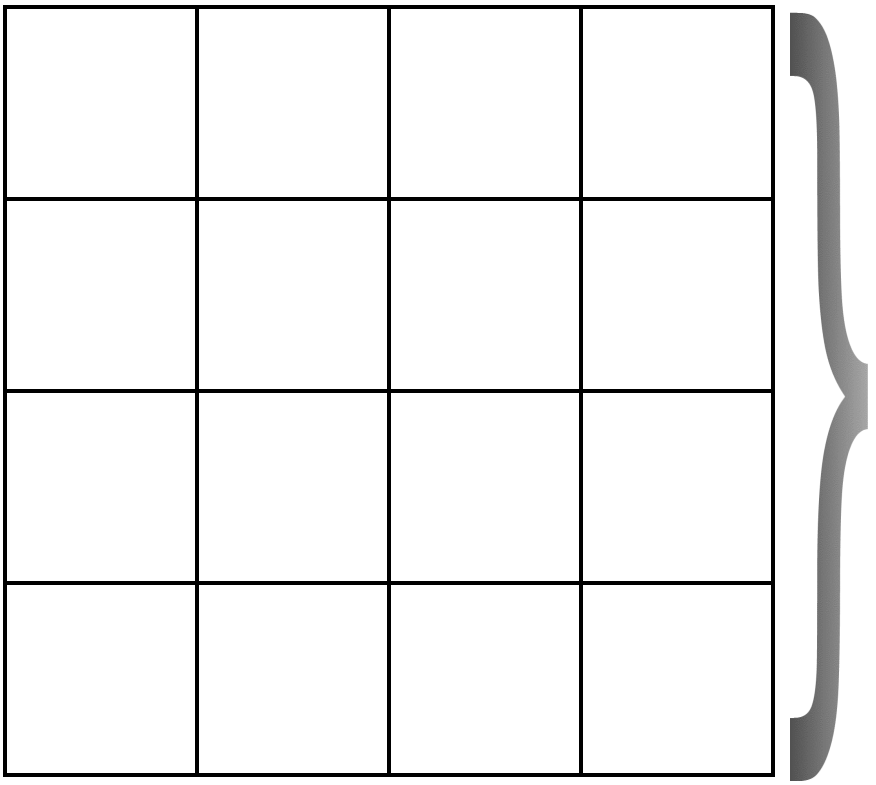
fun with NUMBERS

How many <u>total squares</u> can you see?

(clues: line segments are equal, and each angle is 90 °)



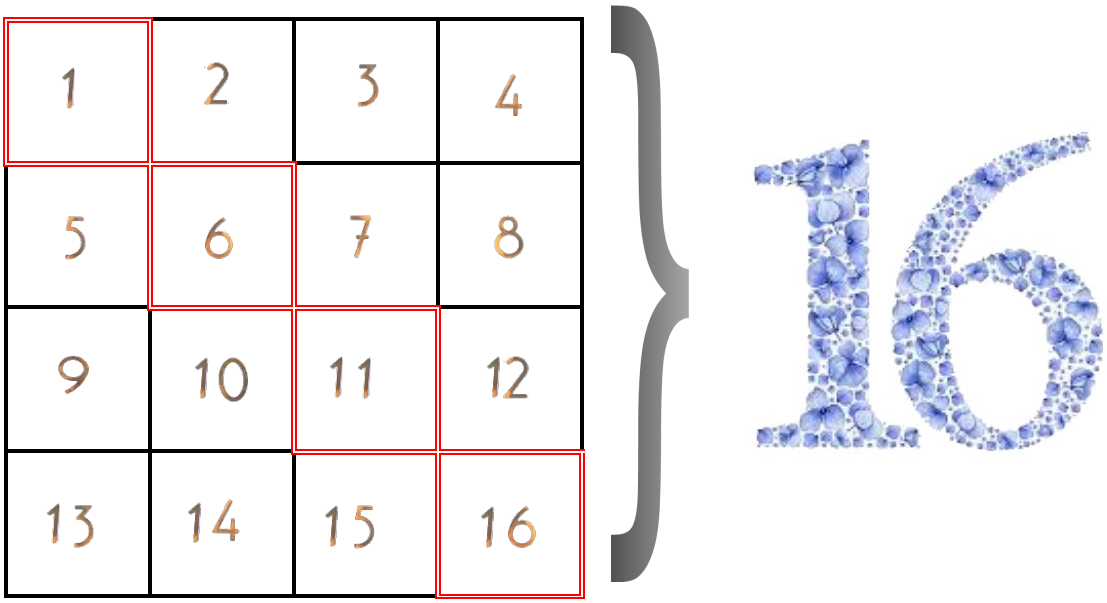
and … 16

wouldn't be the correct answer …

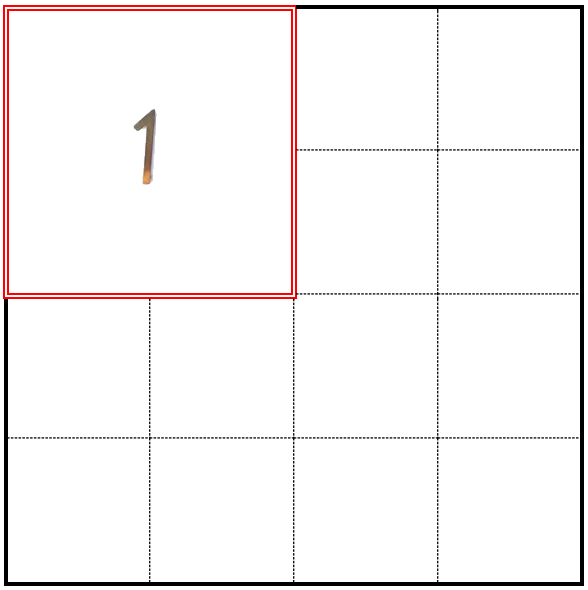
let's count the correct number of squares …

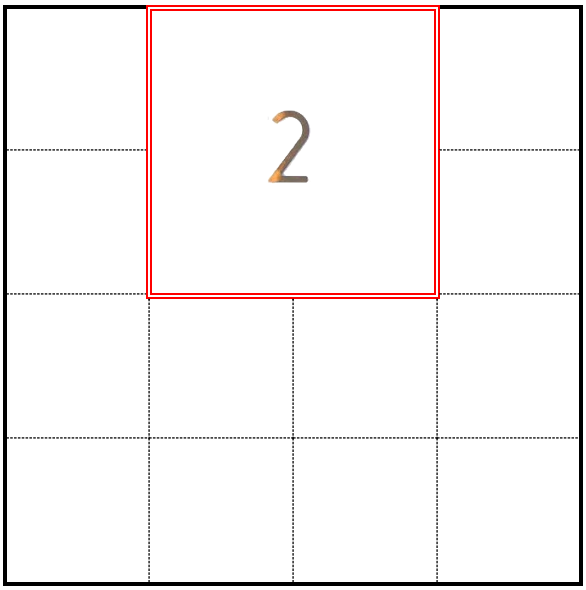
Throw away the complicated mathematical calculations and fancy algorithms for the time being … let's focus on some simple elementary concepts … **NUMBER COUNTING: 1✧2✧3✧4** … **SO FAR, SO GOOD** … **DIRECTIONS: NORTH✧SOUTH✧EAST✧WEST** … excellent … we've mastered the difficult parts so far.

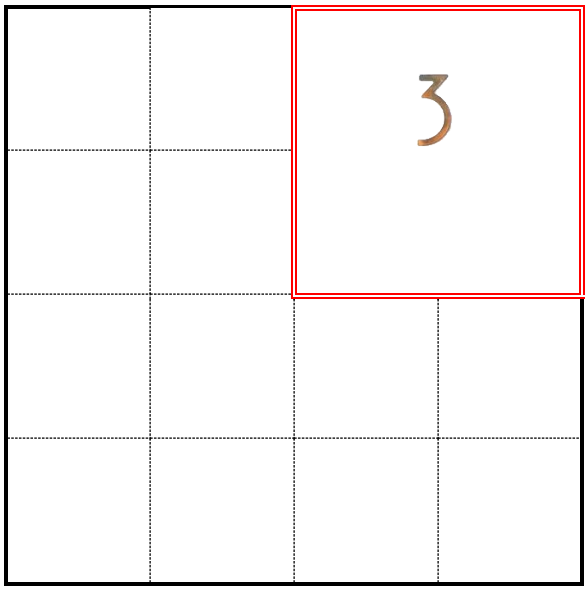
Whew … the difficult part is behind so let's start from the beginning using the counting function, and begin with the squares having one side:



Next, using logical directions, beginning in the northwest, with the first square, then counting the two-sided squares:



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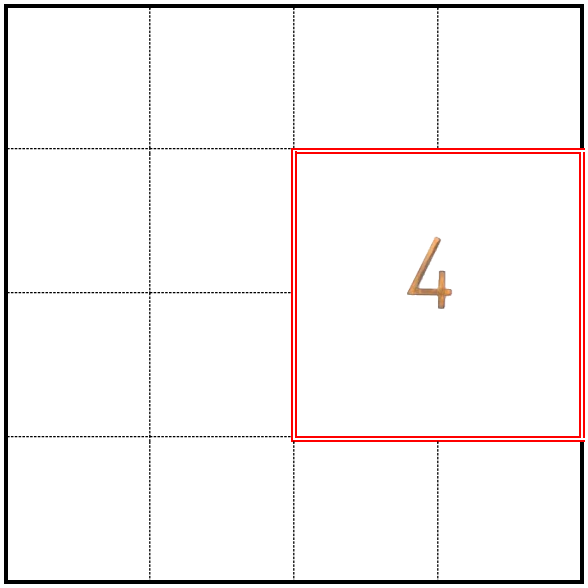
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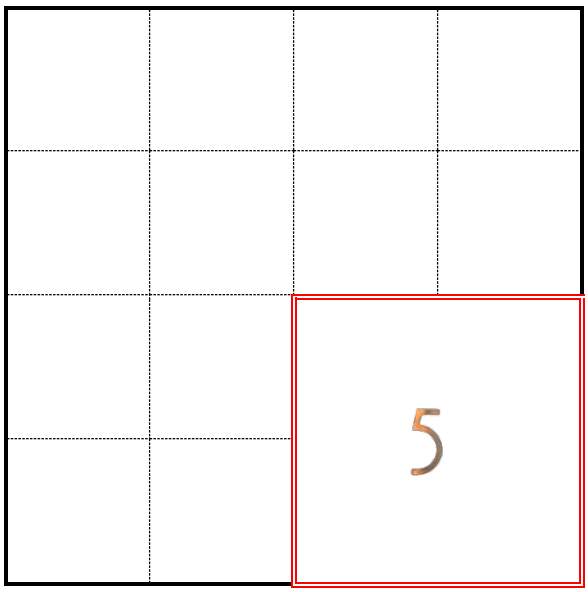
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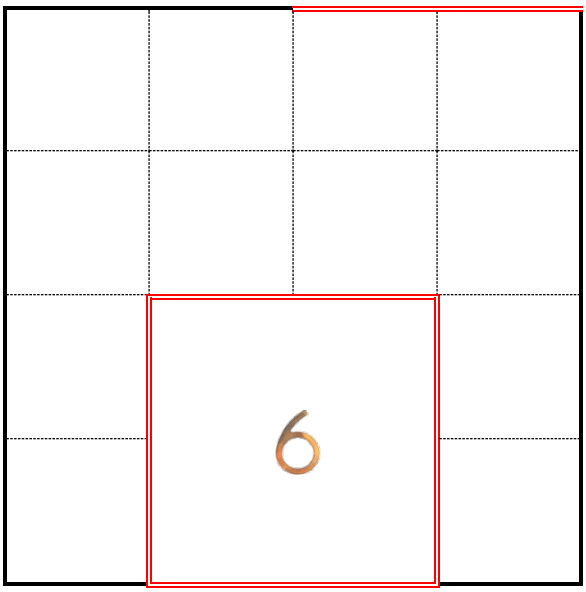
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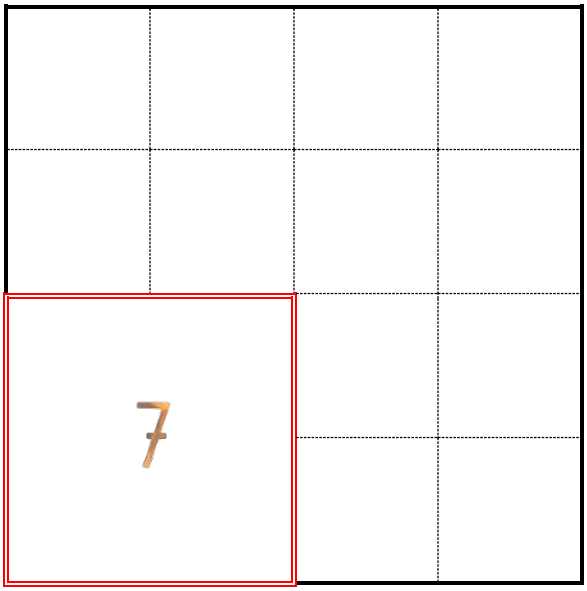
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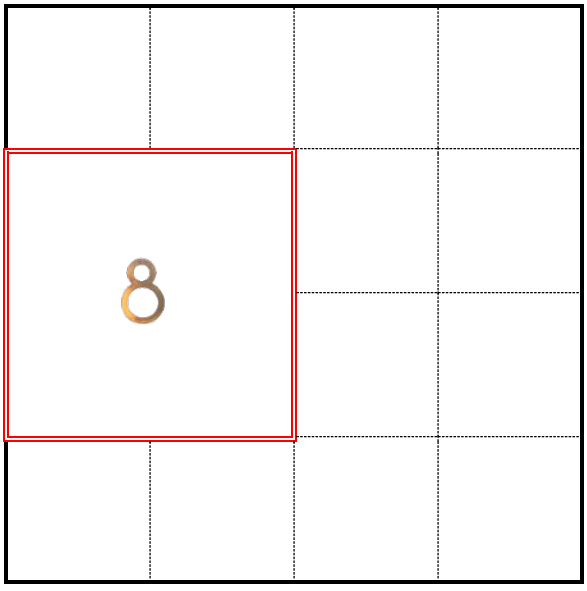
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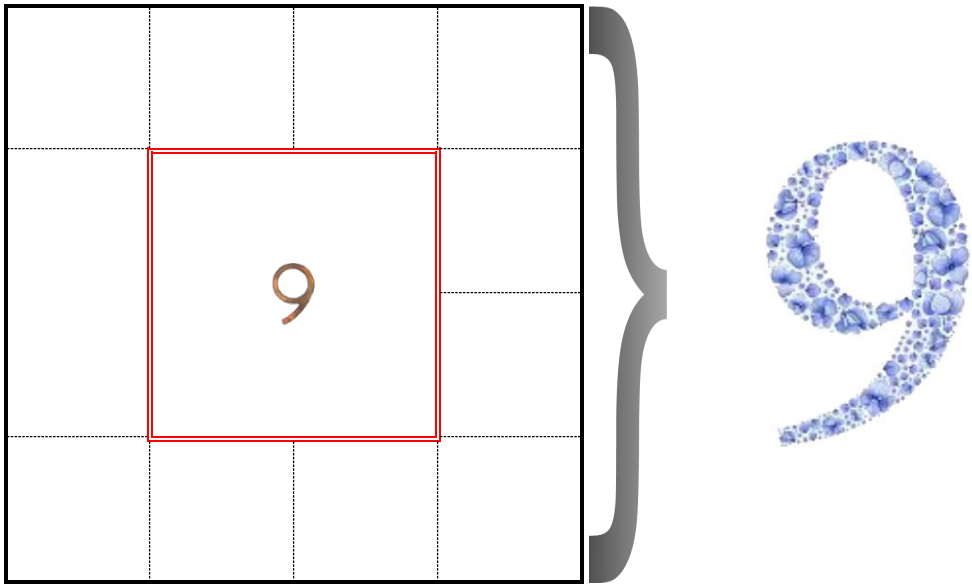
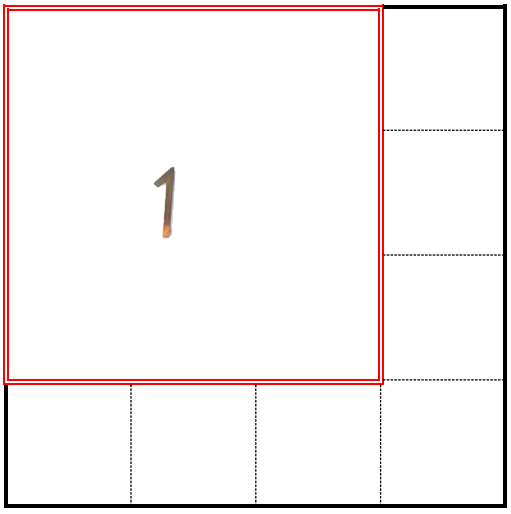
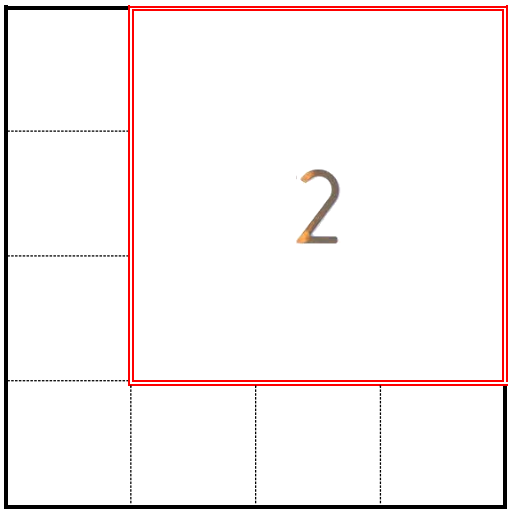
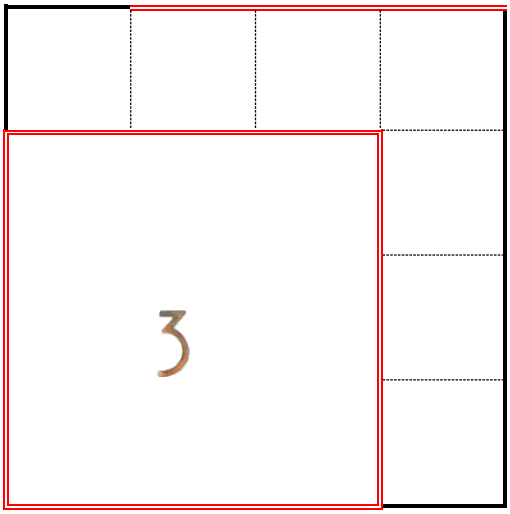
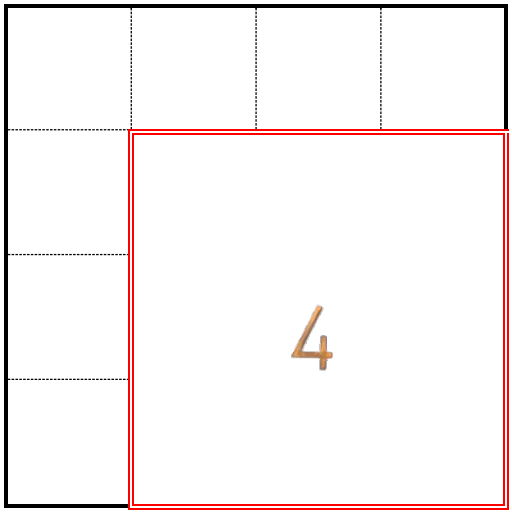


Continuing to use using logical directions, and again beginning in the northwest with the first square, then counting the three-sided squares:









Finally, counting the three-sided squares counting the squares that have four sides:

1

16 + 9 + 4 + 1 = 30