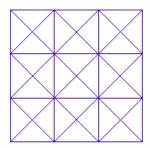
Cutting and Counting Squares

October 20, 2018

 $1.\ \,$ Counting squares: Count the number of squares in the diagram below.



2. Cutting squares: Into how many squares can you cut a square? (Imagine cutting with imaginary scissors!)

The squares do not have to be the same size. A chart might help you keep track of your answers. Do you see any patterns? (HINT – if you get stuck on one number, move on to another number.)

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Number of Squares	Possible?
1	Yes, with zero cuts!
2	
3	
4	
5	
6	
7	
8	
9	
10	

3. Cutting cubes: Into how many cubes can you cut a cube? Can you cut it into 15 cubes? 20? 25? What patterns do you find?