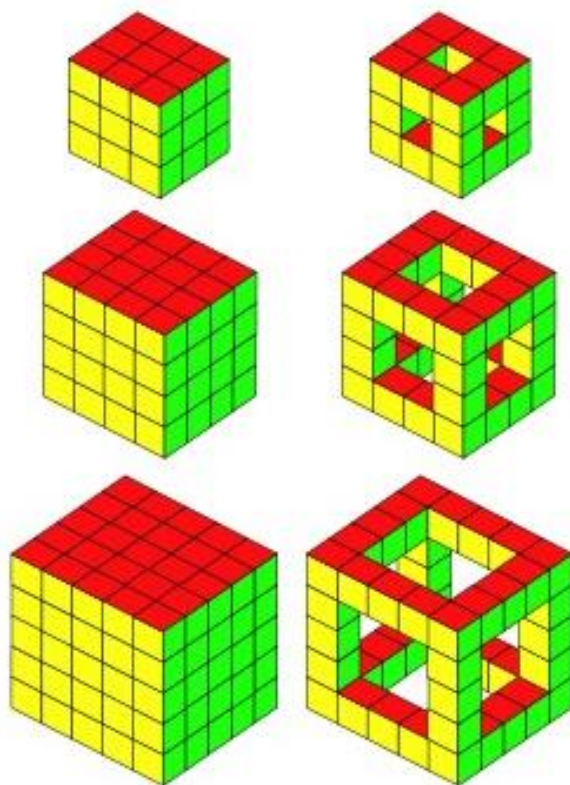


# Holes



Here we have three solid cubes and three cubes that have holes. They're just the first three in a series that could go on and on.

I was wondering about the number of cubes used in each ...

Then I thought about the difference between those numbers.

So, for example, I found that the first cube, 3 by 3 by 3, used 27 cubes.

The same cube with holes used 20 cubes, a difference of 7.

You can call these types of cubes what you like but I called them "Solid" and "Frame".

How about exploring the numbers for the next few Solid and Frame cubes?

Do you notice any patterns?  
Can you explain any of the patterns?