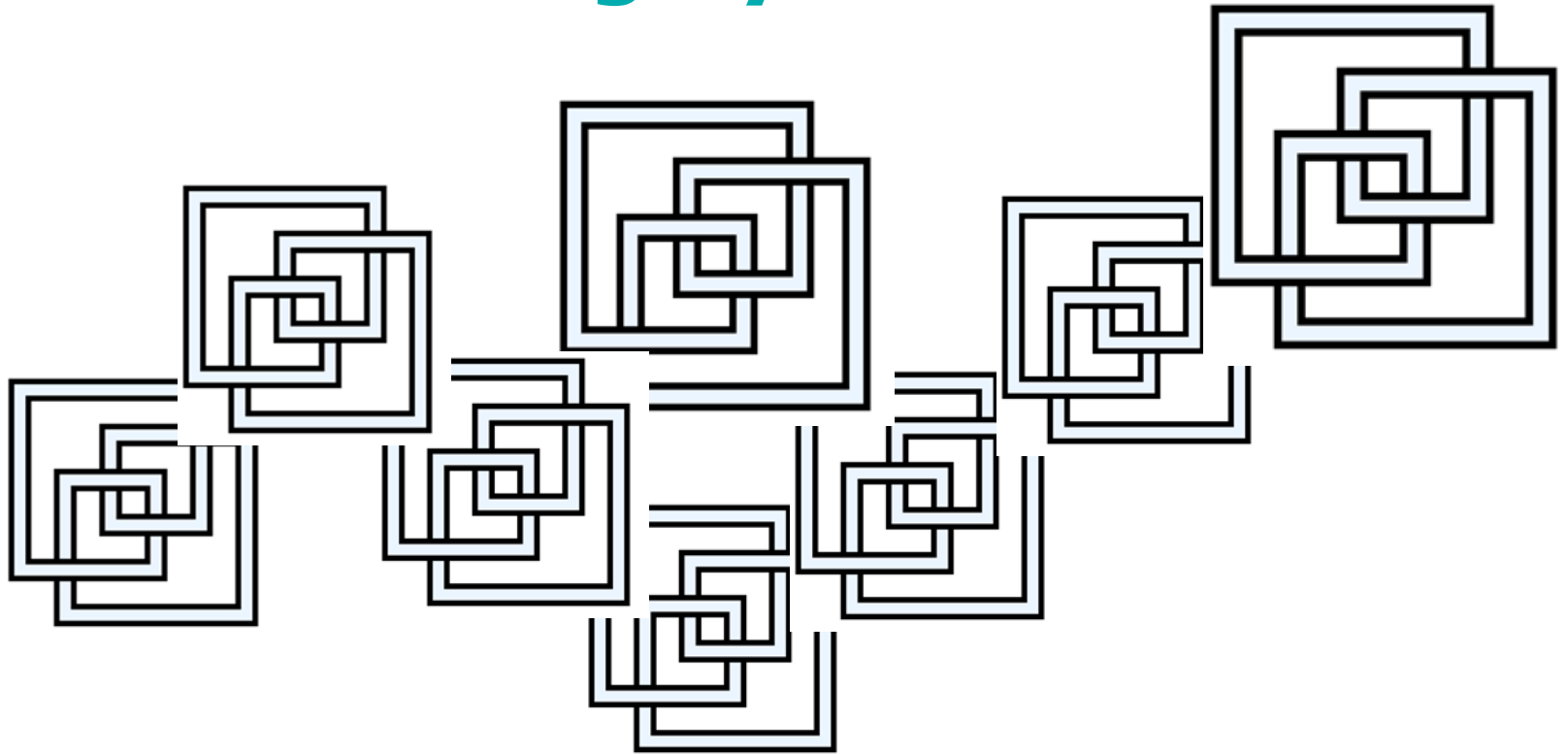


Royal Institution Primary Maths Masterclasses

Off the shelf Masterclass: **Being Systematic**



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Counting cubes!

**How
many
cubes?**

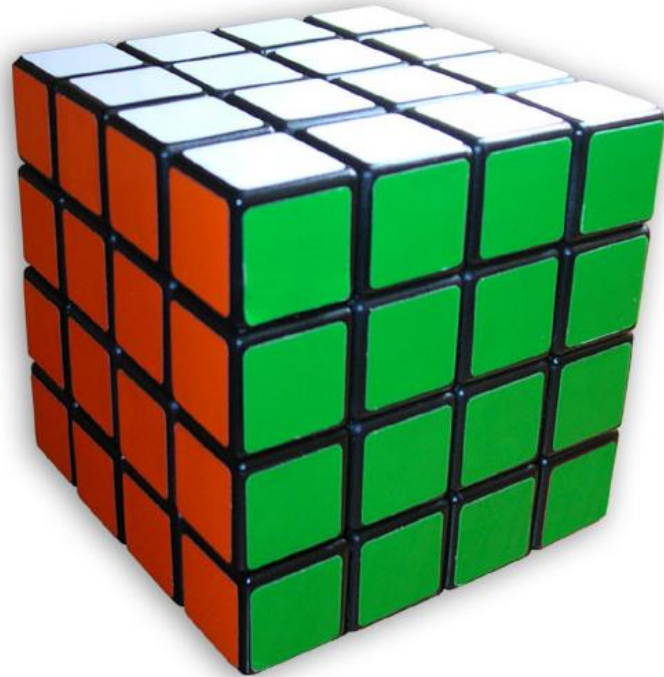


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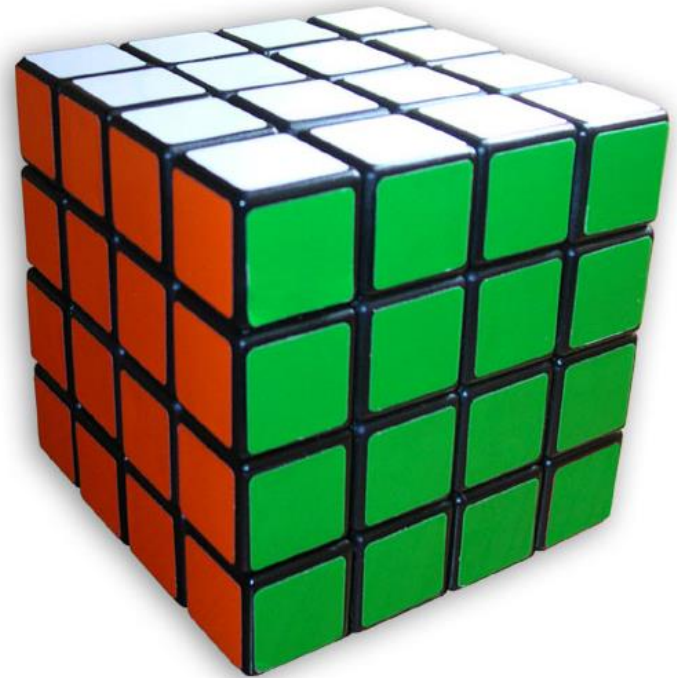
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Answers on the next slide

- Do not look at the next slide until you have had a go yourself.

Counting cubes!

Inner cube size	Upwards/ along/ backwards	In whole cube
1x1x1	4	64
2x2x2	3	27
3x3x3	2	8
4x4x4	1	1



Number of cubes in 4 by 4 cube
 $= 4^3 + 3^3 + 2^3 + 1^3 = 64 + 27 + 8 + 1$
 $= 100$