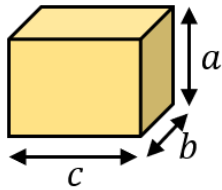
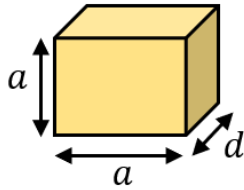


Volume of Cuboids Challenge

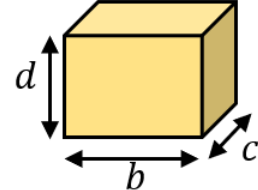
Given the volumes of these six cuboids, can you work out the measurements, a, b, c and d ? Explain how you got your answers.



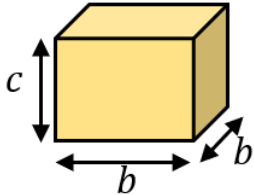
Volume = 1512 cm^3



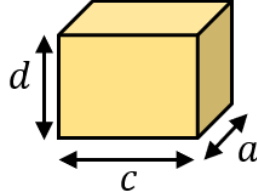
Volume = 648 cm^3



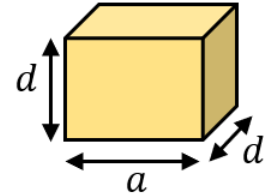
Volume = 1344 cm^3



Volume = 2016 cm^3



Volume = 1008 cm^3



Volume = 576 cm^3

$a = 9 \text{ cm}$

$b = 12 \text{ cm}$

$c = 14 \text{ cm}$

$d = 8 \text{ cm}$

How many more cubes and cuboids can you create using only these four dimensions.
Find the volume of each cube or cuboid you find.

There are 14 more cubes and cuboids:

$9 \times 9 \times 9 = 729$

$8 \times 8 \times 14 = 896$

$12 \times 12 \times 9 = 1296$

$12 \times 12 \times 12 = 1728$

$9 \times 9 \times 12 = 972$

$14 \times 14 \times 8 = 1568$

$14 \times 14 \times 14 = 2744$

$9 \times 9 \times 14 = 1134$

$14 \times 14 \times 9 = 1764$

$8 \times 8 \times 8 = 512$

$12 \times 12 \times 8 = 1152$

$14 \times 14 \times 12 = 2352$

$8 \times 8 \times 12 = 768$

$8 \times 9 \times 12 = 864$

CLUE 1	CLUE 2	CLUE 3
The order of measurements from smallest to biggest is d, a, b, c	A rectangle with width b and length c has an area of 168 cm^2 .	The volume of a cube with side length a is 729 cm^3 .