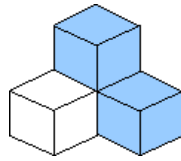


Building patterns

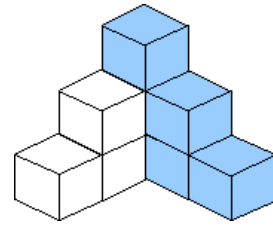
This task is about continuing a spatial pattern and writing a rule.



Shape 1



Shape 2



Shape 3

Here are the first three shapes in a pattern.

- a) Use the cubes to build Shape 4.
- b) Complete the table below for Shape 4.

Shape number (n)	1	2	3	4
Number of cubes (c)	1	4	9	

Check with your teacher if your model is correct, and your table is correct for Shape 4.

c) How many cubes would be needed to build

i) Shape 5? _____

ii) Shape 6? _____

iii) Shape 20? _____

d) Explain in words or symbols how to get the answer for shape 20 above.

e) Use your model of Shape 4 to show your teacher how this works.
