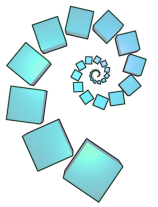


Sandwiches



1. Start with two 1's, two 2's and two 3's

1 1 2 2 3 3

Arrange these six digits in a line so that:

between the two 1's there is one digit

between the two 2's there are two digits

and between the two 3's there are three digits

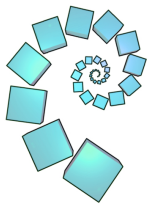
2. Now, try to do it if you only have two 1's and two 2's – one digit between the 1's and two digits between the 2's. Can it be done?

3. It is possible to make a line as before if you include two four's, and between the two 4's there are four digits. Try it.

1 1 2 2 3 3 4 4

Please turn over

Sandwiches



Sandwiches continued...

4. If you have two 5's too, it is actually impossible to make a line as described at the start of this activity - that is with 5 digits between the 5's.

It's also impossible to do it if you have two 6's as well as all the others...

BUT ...

if you have two each of the digits 1 to 7

IT CAN BE DONE!!

1 1 2 2 3 3 4 4 5 5 6 6 7 7

There is more than one way of doing this – try to find at least one arrangement that works with all seven digits.