'What Was in the Box?' printed from http://nrich.maths.org/

A number in a little box is put into a wonderful big box that does something special to the number and then a new number comes out at the end:
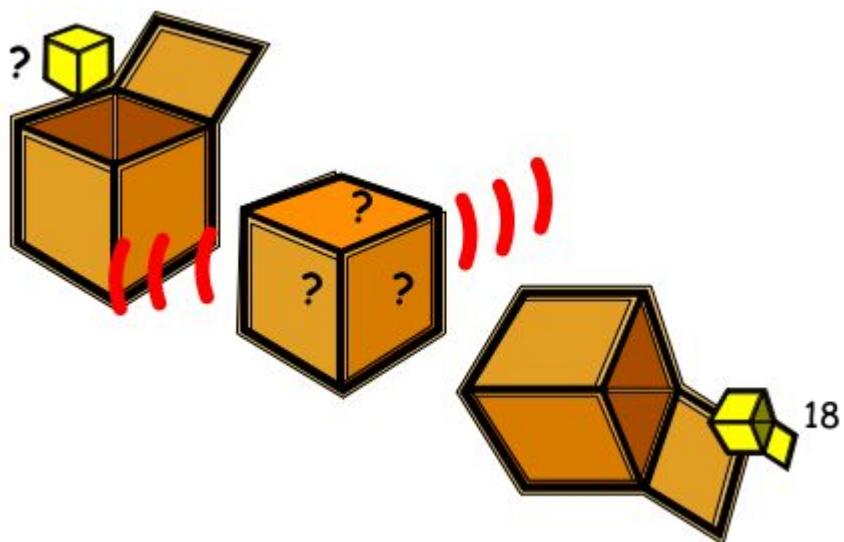

Only whole numbers go in, so, what might have happened in the big box to get the answer in the picture above?

Now three more boxes with new numbers in, go into the wonderful box one at a time. It still does the same as before;

So, what were these three new numbers that went in and do you have a better idea of what has been going on - remember it was the same for all four numbers that went in.

Imagine four new boxes now (with new numbers in) and the wonderful box does a new and different thing this time. The numbers that come out are these:
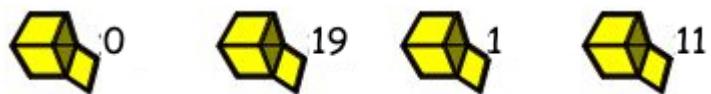
How did you work these out?
Discuss with others and see if there were different ways that you found the answers.