

April 24th

In a shop, croissants can be purchased in boxes of 6, 9 or 14.

It is not possible to purchase 11 croissants.
20 croissants could be purchased by buying a box of 6 and a box of 14.

Work out the largest number of croissants that cannot be purchased from the shop.



This is the well known “McNugget” problem, to find the Frobenius number of a given set of numbers (in this case 6, 9, and 14)

It isn't a particularly easy process to find the Frobenius number, however, by inspection, you can find you can't make the following numbers:

7, 8, 10, 11, 13, 16, 17, 21, 22, 25, 31.....

And the answer is **31**