

# Lollipops challenge

*I used a systematic method to find the answer:*

Number of lollies	Does it apply for the first rule?	Does it apply for the second rule?	So is it an answer?
1	No	No	No
2	No	No	No
3	Yes	No	No
4	No	No	No
5	Yes	No	No
6	No	No	No
7	Yes	Yes	Yes
8	No	No	No
9	Yes	No	No
10	No	No	No
11	Yes	No	No
12	No	Yes	No
13	Yes	No	No
14	No	No	No
15	Yes	No	No
16	No	No	No
17	Yes	Yes	Yes
18	No	No	No
19	Yes	No	No
20	No	No	No

I know that the first rule is that when the number is divided by 2, it has to give a remainder of 1.

I also know that the second rule is that when the number is divided by 5, it has to give a remainder of 2.

I think the answers are 7, 17, 27, 37, 47, etc because all the numbers that end in 7 apply to both the rules.