



# Different Distributions



As we've seen, if you have three jars with 1, 2, and 3 cookies, then you can take all the cookies in only two rounds. What if, instead, the jars have 1, 3, and 5 cookies? Can you still take all the cookies in only two rounds?

If you have three jars with 1, 3, and 5 cookies, there are 9 cookies total. Can you find a way to put fewer than 9 cookies in three jars so it still takes three rounds to remove them all?

Can you find a way to put cookies in four jars so it takes four rounds to remove them all? If so, how many cookies did you use?

What is the **smallest** number of cookies you can use so it still takes four rounds?

For each number of jars, try to find a way to put cookies in the jars using **as few cookies as possible** so that it's **not possible** to take all the cookies in **fewer rounds than the number of jars**.

# of jars	How many cookies in each jar?
3	— — —
4	— — — —
5	— — — — —
6	— — — — — —
7	— — — — — — —
8	— — — — — — — —