*Archibald and Beatrix play with a pile of n>100 tokens, sequentially picking m tokens from the pile with m being a prime number [including m=1] or a multiple of 6, the winner taking the last tokens. If Beatrix knows n and proposes to Archibald to start, what is the value of n?*

k<-function(n)n<4||all(n%%2:ceiling(sqrt(n))!=0)||!n%%6

g=(1:3)

n=c(4,i<-4)

while(max(n)<101){

if(k(i)) g=c(g,i) else{

while(i%in%g)i=i+1;j=4;o=!j

while(!o&(j

since it returned no unsuccessful value above 100! With 4, 8, 85, 95, and 99 as predecessors. A rather surprising outcome and a big gap that most certainly has a straightforward explanation! Or a lack of understanding from yours truly: Since this post appears after the solution was published in Le Monde I am more bemused than ever since the losing numbers in the journal are given as 4, 8, 85, … 89, and 129. With the slight hiccup that 89 is a prime number…. The other argument that there can only be five such losers is well-taken since there are only five possible non-zero remainders in the division by 6.