Solve the egg problem used to illustrate the Chinese Remainder Theorem if the remainders on division by 2,3,4,5,6 and 7 are all 1 by

(i) the given procedure (ii) the "easier" way

1. the given procedure

X=1(Mod2)  
X=1(Mod3)  
X=1(Mod4)

X=1(Mod5)  
X=1(Mod6)  
X=1(Mod7)

If [x\equiv a(\bmod N)](javascript:;)and [x\equiv a(\bmod M)](javascript:;)and [\gcd(N,M)=1](javascript:;)then [x\equiv a(\bmod NM)](javascript:;). We will use this result.   
  
The first congruence can be ignored since [x\equiv 1(\bmod 4)](javascript:;)implies [x\equiv 1(\bmod 2)](javascript:;).  
  
The fifth congruence, [x\equiv 1(\bmod 6)](javascript:;)is equivalent to [x\equiv 1(\bmod 2) \text{ and }x\equiv 1(\bmod 3)](javascript:;). But these are already true. Thus, this congruence can be ignored also.  
  
We are left with,  
[x\equiv 1(\bmod 3)](javascript:;)  
[x\equiv 1(\bmod 4)](javascript:;)  
[x\equiv 1(\bmod 5)](javascript:;)  
[x\equiv 1(\bmod 7)](javascript:;)  
  
This is equivalent to,  
[x\equiv 1(\bmod ~ 3\cdot 4\cdot 5\cdot 7)](javascript:;)

I have found that the congruent to 1 modulo 420 (30\*40\*50\*7=420)

I am not sure if this is right..

For the second part what i have to do?

I said that when the eggs were taken out of 2 the remainder was 1 so 2k+1.. and i continues in thas way.. but i am not sure.. please can you help ....