Codeforces Round 792 (Div. 1 + Div. 2)

May 20, 2022

1 Problem B

Let's consider x, y, z where $x < y < z$ because through each equation, x, y, z keep getting smaller and smaller. This is an approach I find it easy, of course there are various solutions.

- $z = c$ because $z < x$
- $y \pmod{n} = b \rightarrow y \pmod{c} = b \rightarrow y = b + c$ because $b < c \rightarrow y$ is not divisible by z
- $x \pmod{y} = a \rightarrow x = a + b + c$ because $b + c = y$ and $a < b < c$ so x is not divisible by y

In conclusion, $x = a + b + c$; $y = b + c$; $z = c$.