

**LA MULTI ANI !!!!!**

$$(10 - 9)(8 - 7 + 6)(5 + 4 \times 3)^2(1)$$

$$= 2023.$$

**Numărătoarea inversă până la anul nou**

**Vasile Cocîrla, cl a X-a A**

**LA MULTI ANI !!!!!**

$$(10+(9+8\times 7)\times 6)\times 5+4\times 3\times 2-1$$

$$= 2023.$$

**Numărătoarea inversă până la anul nou**

**Vasile Cocîrla, cl a X-a A**



2023

$$= (2+0+2+3) \times (2^2+0^2+2^2+3^2)^2$$

$$= 7 \times 17^2$$



$$(2+0+2+3)^{2+0+2+3} \bmod (2+0+2+3)! = 2023.$$

Why?  $2+0+2+3 = 7;$

$$7^7 = 7 \times 7 \times 7 \times 7 \times 7 \times 7 \times 7 = 823543;$$

$$7! = 7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1 = 5040;$$

$$\begin{array}{r}
 163 \text{ R}2023 \\
 5040 \overline{)823543} \\
 \underline{-5040} \\
 31954 \\
 \underline{-30240} \\
 17143 \\
 \underline{-15120} \\
 2023
 \end{array}$$





# LA MULTI ANI!

$$7^7 \bmod 7!$$

*In[ ]:=* **PowerMod[7, 7, 7!]**

*Out[ ]=* **2023**





**DACĂ**

$$\frac{1}{x + 2023} = 2023$$

**ACUM SIMPLIFICATI**

$$\frac{1}{x + 2024} = ??$$

$$\frac{1}{x+3} = 3$$

$$\frac{1-3^2}{3} + 4 = \frac{3}{3(4)-3^2+1}$$

$$= \frac{3}{3(4-3) + (4-3)}$$

$$= \frac{3}{1(3+1)} = \frac{3}{4}$$

$$\Rightarrow \frac{1}{x+2024} = \frac{2023}{2024}$$
