

Off by 1 example

$n = 15$

output = 243

$$3 \times 3 \times 3 \times 3 \times 3 = 243$$

[0, 15, 0, 0, 0, 0, 0]

$$\begin{aligned} \text{list}[2] &= 15/2 = 7 \\ 8/1 &= 8 \end{aligned} \quad \rightarrow 56$$

$$\begin{aligned} \text{list}[3] &= 15/3 = 5 \\ 10/2 &= 5 \\ 5/1 &= 5 \end{aligned} \quad \rightarrow 125$$

$$\begin{aligned} \text{list}[4] &= 15/4 = 3 \\ 12/3 &= 4 \\ 8/2 &= 4 \\ 4/1 &= 4 \end{aligned} \quad \rightarrow 192$$

$$\begin{aligned} \text{list}[5] &= 15/5 = 3 \\ 12/4 &= 3 \\ 9/3 &= 3 \\ 6/2 &= 3 \\ 3/1 &= 3 \end{aligned} \quad \rightarrow 243$$

$$\begin{aligned} \text{list}[6] &= 15/6 = 2 \\ 13/5 &= 2 \\ 11/4 &= 2 \\ 9/3 &= 3 \\ 6/2 &= 3 \\ 3/1 &= 3 \end{aligned} \quad \rightarrow 216$$

to make sure, return max(list)