

Bizonyítsuk be, hogy:

$$\begin{aligned} 1 \cdot (a - 1) + 2 \cdot (a - 2) + 3 \cdot (a - 3) + \dots + n \cdot (a - n) &= \\ &= \frac{n \cdot (n + 1)(3a - 2n - 1)}{6}. \end{aligned}$$

Speciálisan: $a = n + 1$,

$$1 \cdot n + 2 \cdot (n - 1) + 3 \cdot (n - 2) + \dots + n \cdot 1 = \frac{n \cdot (n + 1) \cdot (n + 2)}{6}.$$