Indukcija vaje

Bor Bregant

Naloga 1. Dokaži

$$\sum_{i=1}^{n} i^2 = \frac{n(n+1)(2n+1)}{6}$$
$$\frac{1}{1\cdot 2} + \frac{1}{2\cdot 3} + \ldots + \frac{1}{n(n+1)} = \frac{n}{n+1}$$

Naloga 2. Dokaži

$$3|(n^3 + 2n) \forall n \in \mathbb{N}$$
$$6|(17n^3 + 103n)$$

Naloga 3. DN: Dokaži

$$1^3 + 2^3 + 3^3 + \ldots + n^3 = \frac{1}{4}n^2(n+1)^2$$
$$7|(5^{2n+1} + 2^{2n+1})$$