

Domaći rad - Aritmetički niz 1 - Sara Milošević

**1142.**

$$a_{15} = ?$$

$$a_{15} \rightarrow n = 15$$

$$a_8 = 23 \rightarrow n = 8$$

$$a_1 = 2$$

$$a_n = a_1 + (n - 1) \cdot d$$

$$23 = 2 + (8 - 1) \cdot d$$

$$21 = 7d$$

$$d = 3$$

$$a_{15} = a_1 + (15 - 1) \cdot d$$

$$a_{15} = 2 + 42 = 44$$

**1148.**

$$a_1 + a_2 + a_3 = 27$$

$$a_1^2 + a_2^2 + a_3^2 = 275$$

$$d > 0$$

$$a_1 + a_1 + d + a_1 + 2d = 27$$

$$3a_1 + 3d = 27$$

$$a_1 + d = 9 \rightarrow a_1 = 9 - d$$

$$a_1^2 + (a_1 + d)^2 + (a_1 + 2d)^2 = 275$$

$$a_1^2 + a_1^2 + 2 \cdot a_1 \cdot d + d^2 + a_1^2 + 4 \cdot a_1 \cdot d + 4d^2 = 275$$

$$3a_1^2 + 5d^2 + 6 \cdot a_1 \cdot d = 275$$

$$3 \cdot (9 - d)^2 + 5d^2 + 6d \cdot (9 - d) = 275$$

$$3 \cdot (81 - 18d + d^2) + 5d^2 + 6d \cdot (9 - d) = 275$$

$$-54d + 3d^2 + 5d^2 + 54d - 6d^2 = 275 - 243$$

$$2d^2 = 32 \rightarrow d^2 = 16$$

$$d = -4 \text{ (ne moze jer } d > 0)$$

$$d = 4 \rightarrow a_1 = 9 - 4 = 5$$

Niz je: 5,9,13,17,21 ...

