

## Zadaci:

### 1. Izračunati:

$$a) \sqrt{-25} + \sqrt{-16} - 3\sqrt{-49}$$

$$b) \sqrt{-18} + \sqrt{-8} - \sqrt{-32} + \sqrt{-2}$$

$$c) \sqrt{-3} + \sqrt{-12} - \sqrt{-48} + \sqrt{-27}$$

Rješenje:

$$a) \sqrt{-1} \sqrt{25} + \sqrt{-1} \sqrt{16} - 3 \cdot \sqrt{-1} \sqrt{49} = 5i + 4i - 3 \cdot 7i = 9i - 21i = -12i$$

$$b) 2i$$

$$c) 2\sqrt{3}i$$

Sabrati i oduzeti sledeće kompleksne brojeve: 2.

$$z_1 = 4 + 7i$$

$$z_2 = 3 - 3i$$

Rješenje:

$$z_1 + z_2 = (4 + 3) + (7 - 3)i = 7 + 4i$$

$$z_1 - z_2 = (4 - 3) + (7 - (-3))i = 1 + 10i$$

3. Pomnoži I podijeli sledeće kompleksne brojeve:

$$z_1 = -3 + 5i$$

$$z_2 = 4 - 2i$$

Rješenje:

$$z_1 \cdot z_2 = (-3 + 5i) \cdot (4 - 2i) = -12 + 6i + 20i - 10i^2$$

$$= -12 + 26i - 10 \cdot (-1) = -12 + 26i + 10 = -2 + 26i$$

$$z_1 : z_2 = \frac{-3+5i}{4-2i} \cdot \frac{4+2i}{4+2i} = \frac{(-3 \cdot 4 + 5 \cdot 2) + (5 \cdot 4 - (-3) \cdot 2)i}{4^2 - 2^2} =$$

$$\frac{(-12+10) + (20+6)i}{16-4} = \frac{-2+26i}{12}$$

***Na ovom linku imate video slicnih zadataka:***

**<https://www.youtube.com/watch?v=zm6GpGIAqi8>**

