

Praca domowa – Wektory III

Zadanie 1. Oblicz iloczyn wektorowy $\vec{a} \times \vec{b}$

$$a = (1, 0, 2) \quad b = (-1, 2, 1) \quad (1)$$

$$a = (2, 1, \frac{1}{2}) \quad b = (-1, \frac{3}{5}, 2) \quad (2)$$

$$a = (e, 3, -1) \quad b = (\frac{1}{3}, 0, 1) \quad (3)$$

$$a = (1, 0, 1) \quad b = (0, 1, 0) \quad (4)$$

$$a = (1, 2) \quad b = (2, -1) \quad (5)$$

Zadanie 2. Oblicz długość iloczynu wektorowego $\vec{a} \times \vec{b}$ mając dane

$$|a| = 1 \quad |b| = 3 \quad \varphi = \frac{\pi}{6} \quad (6)$$

$$|a| = \frac{1}{2} \quad |b| = \frac{3}{2} \quad \varphi = \frac{3\pi}{4} \quad (7)$$

$$|a| = 2 \quad |b| = 1 \quad \varphi = \frac{2\pi}{3} \quad (8)$$

$$|a| = \frac{3}{2} \quad |b| = \frac{4}{5} \quad \varphi = \frac{7\pi}{6} \quad (9)$$

$$|a| = \sqrt{3} \quad |b| = \sqrt{2} \quad \varphi = \frac{7\pi}{4} \quad (10)$$

Zadanie 3. Oblicz iloczyn mieszany $\vec{a} \cdot (\vec{b} \times \vec{c})$ dla

$$a = (1, 2, -1) \quad b = (0, 1, 3) \quad c = (3, 1, 0) \quad (11)$$

$$a = (0, 1, 4) \quad b = (-1, 3, -3) \quad c = (-1, 3, 4) \quad (12)$$