

§9. Test

$$A[0; 2; 1]$$

$$X \in p$$

Př:

5:

$$\rho(A, X) = \frac{\sqrt{(3+2t)^2 + (5+3t)^2 + (2+4t)^2}}{\sqrt{29(t+1)^2 + 9}} = \frac{\sqrt{29t^2 + 58t + 38}}{\sqrt{29(t+1)^2 + 38 - 29}} =$$

$$\rho(A, p) = 9$$

Př:

6:

$$\rho : 4x - 2y + 2x - 10 = 0$$

$$\sigma : 4x - 2y + 2x - 13 = 0$$

$$\rho(\rho, \sigma) = \frac{|-10 + 13|}{\sqrt{4^2 + 2^2 + 2^2}} = \frac{3}{2\sqrt{6}} = \frac{\sqrt{6}}{4}$$

Př:

7:

$$\vec{u} \sim (9; 9; 7)$$

$$\vec{n} = (3, 6, -7)$$

$$\alpha = \arcsin \frac{|9 \cdot 3 + 9 \cdot 6 - 7 \cdot 7|}{\sqrt{9^2 + 9^2 + 7^2} \cdot \sqrt{3^2 + 6^2 + 7^2}} = \arcsin \frac{32}{\sqrt{19834}} = \arcsin \frac{16\sqrt{19834}}{9917}$$

Př:

8:

$$\vec{u} = (-2; 1)$$

$$\vec{v} = (1, -6)$$

$$\alpha = \arccos \frac{|-2 - 6|}{\sqrt{4 + 1} \cdot \sqrt{1 + 6}} = \arccos \frac{\sqrt{8}}{\sqrt{185}} = \arccos \frac{8\sqrt{185}}{185}$$