

$$p = (x, y, z) \quad \frac{x^2}{r^2} + \frac{y^2}{s^2} = 1, \quad 0 \leq z \leq h$$

$$e = (e_1, e_2, e_3)$$

$$d = (d_1, d_2, d_3)$$

$$\text{braža } e + \lambda d$$

xy ravmima

$$\hookrightarrow (e_1, e_2, 0) + \lambda (d_1, d_2, 0), \quad \lambda \in \mathbb{R}$$

$$\frac{(e_1 + \lambda d_1)^2}{r^2} + \frac{(e_2 + \lambda d_2)^2}{s^2} = 1 \quad \rightarrow \quad \frac{(e_1 + \lambda d_1)^2}{r^2} + \frac{(e_2 + \lambda d_2)^2}{s^2} - 1 = 0$$

$$\frac{e_1^2 + 2e_1\lambda d_1 + (\lambda d_1)^2}{r^2} + \frac{e_2^2 + 2e_2\lambda d_2 + (\lambda d_2)^2}{s^2} - 1 = 0 \quad / \cdot r^2 s^2$$

$$e_1^2 + 2e_1\lambda d_1 + \lambda^2 d_1^2 + e_2^2 + 2e_2\lambda d_2 + \lambda^2 d_2^2 - r^2 s^2 = 0$$

$$(d_1^2 + d_2^2)\lambda^2 + (2e_1 d_1 + 2e_2 d_2)\lambda + (e_1^2 + e_2^2 - r^2 s^2) = 0$$

$$\lambda_{1,2} = \frac{-2e_1 d_1 - 2e_2 d_2 \pm \sqrt{(2e_1 d_1 + 2e_2 d_2)^2 - 4(d_1^2 + d_2^2)(e_1^2 + e_2^2 - r^2 s^2)}}{2(d_1^2 + d_2^2)}$$