Úlohy ke cvičení

Úloha 1: Interpolate plane $ax + by + cz + d = 0$ through points

a) $(6, 4, 6)$, $(3, 5, 4)$ and $(5, 2, 3)$

b) $(6, 3, 5)$, $(3, 2, 7)$ and $(5, 1, 4)$

Úloha 2: For planes $\alpha : x + y + z - 10 = 0$, $\beta : x + y - z - 4 = 0$, $\gamma : -x + y + z - 6 = 0$, and $\delta : x - y + z - 8 = 0$, determine the intersections:

a) $\beta \cap \gamma \cap \delta$

b) $\alpha \cap \beta \cap \delta$

Úloha 3: Interpolate plane $ax + by + cz + d = 0$ through points

a) $(6, 4, 6)$, $(3, 5, 4)$ and $(5, 2, 3)$

b) $(6, 3, 5)$, $(3, 2, 7)$ and $(5, 1, 4)$

Úloha 4: Interpolate a circle through points $A = (2, 1)$, $B = (4, 3)$ and $C = (0, 7)$.

Úloha 5: Interpolate a cubic polynomial through points $(-2, 5)$, $(-1, 2)$, $(1, -4)$, and $(2, 5)$.