grevlex, $x_1 > x_2 > x_3 > x_4$, $F = \{f_1, f_2, f_3\}$

$$\begin{aligned} f_1 &= x_1^{n+1} - x_2\, x_3^{n-1}\, x_4 \\ f_2 &= x_1\, x_2^{n-1} - x_3^n \\ f_3 &= x_1^n\, x_3 - x_2^n\, x_4 \\ &\Longrightarrow x_3^{n^2+1} - x_2^{n^2}\, x_4 \in G\,, \;\; \#G = n+3 \;\; ? \end{aligned}$$

grevlex, $x_1 < x_2 < x_3 < x_4 \Longrightarrow F$ on Gröbner-kanta.

lex, $x > y > z$, $\mathcal{I} = \langle x^5 + y^4 + z^3 - 1, x^3 + y^2 + z^2 - 1 \rangle \quad \Longrightarrow$ Gröbner-kanta:

$$\begin{aligned} \#G &= 7 \\ g_2 &= x\, z^{11} + 48 \,\text{muuta termiä} \\ g_3 &= 24\, x\, y^2 z + 52 \,\text{muuta termiä} \end{aligned}$$

lex, $x < y < z \Longrightarrow$

$$\begin{aligned} \#G &= 4 \\ g_1 &= y^8 + 12 \,\text{muuta termiä} \end{aligned}$$

grevlex $\Longrightarrow$

$$\begin{aligned} \#G &= 4 \\ g_4 &= y^6 + 18 \,\text{muuta termiä} \end{aligned}$$