$$I = \left(x^2 + 1 \right)$$

$$\mathbb{Z}_4[x]/I = \left\{ ax + b + I \mid a,b \in \mathbb{Z}_4 \right\}$$

$$G = U\left(\mathbb{Z}_4[x]/I \right) = \left\{ 1+I, 3+I, 2x+1+I, 2x+3+I, x+I, x+2+I, 3x+I, 3x+2+I \right\}$$

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