$\begin{bmatrix} A & B & C \\ A & B & C \end{bmatrix}$ $\begin{bmatrix} A & B & C \\ C & A & B \end{bmatrix}$ $\begin{bmatrix} A & B & C \\ B & C & A \end{bmatrix}$ $\begin{bmatrix} A & B & C \\ B & A & C \end{bmatrix}$ $\begin{bmatrix} A & B & C \\ C & B & A \end{bmatrix}$ $\begin{bmatrix} A & B & C \\ A & C & B \end{bmatrix}$

I $\quad \overline{R_j} \circlearrowright$ $\quad R_i \circlearrowleft$ $\quad X_C$ $\quad X_B$ $\quad X_A$

•	I	$\overline{R_j}$	R_i	X_A	X_B	X_C
I	I	$\overline{R_j}$	R_i	X_A	X_B	X_C
$\overline{R_j}$	$\overline{R_1}$	R_i	I	X_B	X_C	X_A
R_i	R_i	I	$\overline{R_j}$	X_C	X_A	X_B
X_A	X_A	X_C	X_B	I	R_i	$\overline{R_j}$
X_B	X_B	X_A	X_C	$\overline{R_j}$	I	R_i
X_C	X_C	X_B	X_A	R_i	R_j	I

Lunes 4-5

$$G_\Delta = \left\{ I, R_i, \overline{R_j}, X_k \right\}$$

• ~~Asociatividad~~

• Cerrada respecto a la operación

$\boxed{*}$: $\left\{ R_i \in G_\Delta , \overline{R_j} \in G_\Delta \right\} \exists R_k = R_i \boxed{*} R_j \in G.$

$$R_i * \overline{R_j} = I \quad y \quad I \in G_\Delta$$

$$(I \cdot R_i) * \overline{R_j} = I \cdot (R_i \cdot R_j) \Rightarrow \quad R \cdot R_j = I . \qquad I \cdot I = I$$

• Asociativa

• Neutro $\Rightarrow \exists \ \hat{g} \in G \Rightarrow g_i \square \hat{g} = g_i = \hat{g} \square g_i$

$$R_i \cdot I = R_i$$

• Inverso $\quad g_i \in G \Rightarrow \exists g_i^{-1} \in G \Rightarrow g_i \square g_i^{-1} = g_i^{-1} \square g_i = \hat{g}$

$$R_i \cdot \overline{R_j} = I$$

Ejercicio 10

$$|P_n\rangle \rightleftarrows p(x) = a_0 + a_1 x + a_2 x^2 + \dots + a_{n-1} x^{n-1} = \sum_{i=0}^{n-1} a_i x^i$$

a) $P(x) \oplus Q(x) = (a_0 + a_1 x + a_2 x^2 + \dots + a_{n-1} x^{n-1}) + (b_0 + b_1 x + b_2 x^2 + \dots + b_{n-1} x^{n-1})$

$= (a_0 + b_0) + (a_1 x + b_1 x) + (a_2 x^2 + b_2 x^2) + (a_n x^n + b_n x^n)$

$\alpha \cdot P(x) = \alpha a_0 + \alpha a_1 x + \alpha a_2 x^2 + \dots + \alpha a_{n-1} x^{n-1}$

mult

- $\forall\, |P_i\rangle, |P_j\rangle, |P_k\rangle \in P \Rightarrow (|P_i\rangle + |P_j\rangle) + |P_k\rangle = |P_i\rangle + (|P_j\rangle + |P_k\rangle)$

- Neutro

$|0\rangle + |P_i\rangle = |P_i\rangle + |0\rangle = |P_i\rangle \;\forall\, |P_i\rangle \in P$