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$$b = \{x^0, x^1, x^2\} \rightarrow \{P_0(x), P_1(x), P_2(x)\}$$

base de salida                      base de llegada

$$3 + 5x + x^2 = \alpha P_0(x) + \beta P_1(x) + \gamma P_2(x)$$

$$3 + 5x + x^2 = \alpha + \beta x + \frac{\gamma}{2}(3x^2 - 1)$$

sistema

$$\begin{cases} \alpha - \frac{\gamma}{2} = 3 \rightarrow \alpha = \frac{10}{3} \\ \beta = 5 \\ \frac{3\gamma}{2} = 1 \rightarrow \gamma = \frac{2}{3} \end{cases}$$

$$\frac{10}{3} P_0(x) + 5 P_1(x) + \frac{2}{3} P_2(x)$$