

1er semestre 2017 Ej. 4

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$$B = \{ \underline{t^2 + 2}, \underline{2t - 1}, \underline{2t^2 - 6t + 7}, \underline{5t^2 + 10t + 5} \} \rightarrow B \text{ es LD}$$

$$\underline{a}t^2 + \underline{b}t + \underline{c} = \underline{\alpha}(t^2 + 2) + \underline{\beta}(2t - 1) + \underline{\gamma}(2t^2 - 6t + 7)$$

$$\left(\begin{array}{ccc|c} 1 & 0 & 2 & a \\ 0 & 2 & -6 & b \\ 2 & -1 & 7 & c \end{array} \right) \sim \left(\begin{array}{ccc|c} 1 & 0 & 2 & a \\ 0 & 2 & -6 & b \\ 0 & -1 & 3 & c - 2a \end{array} \right) \sim \left(\begin{array}{ccc|c} 1 & 0 & 2 & a \\ 0 & 2 & -6 & b \\ 0 & 0 & 0 & 2c - 4a + b \end{array} \right)$$

$$\Rightarrow 2c - 4a + b = 0 : [B] = \{ \mathcal{P}(t) \in \mathcal{P}_2 : 2c + b - 4a = 0 \}$$

$$S = \{ \mathcal{P}(t) \in \mathcal{P}_2 : c = 2a - b/2 \} \quad c = \frac{4a - b}{2}$$

$$\dim \mathcal{P}_2 = 3$$

$$\downarrow$$
$$\text{1 cond} \Rightarrow \dim S = 2$$

$$? S = [B] ?$$

$$\downarrow \text{si } \underline{S = [B]}$$

$$\frac{4a - b}{2}$$