

$$p(x) = ax^3 + bx^2 + cx + d$$

$$p(5) = 0 \quad \left\{ \begin{array}{l} 125a + 25b + 5c + d = 0 \end{array} \right.$$

$$p(8) = 0 \quad \left\{ \begin{array}{l} 512a + 64b + 8c + d = 0 \end{array} \right.$$

$$(125 - 512)a + (25 - 64)b + (5 - 8)c = 0$$

$$\left\{ \begin{array}{l} a = 0 \quad b = 1 \rightarrow c = -(5 + 8) \end{array} \right.$$

$$\left\{ \begin{array}{l} a = 1 \quad b = 0 \rightarrow c = -(25 + 5 \cdot 8 + 8^2) \end{array} \right.$$

$$\left\{ \begin{array}{l} p_1(x) = x^2 - (5 + 8)x + c_1 \end{array} \right.$$

$$\left\{ \begin{array}{l} p_2(x) = x^3 - (25 + 5 \cdot 8 + 8^2)x + c_2 \end{array} \right.$$

$$\left\{ \begin{array}{l} p_1(5) = p_1(8) = 0 \rightarrow c_1 = 5 \cdot 8 \end{array} \right.$$

$$\left\{ \begin{array}{l} p_2(5) = p_2(8) = 0 \rightarrow c_2 = 25 \cdot 8 + 5 \cdot 8^2 \end{array} \right.$$

$$\left\{ \begin{array}{l} p_{e1} = x^2 - (5 + 8)x + 5 \cdot 8 \end{array} \right.$$

$$\left\{ \begin{array}{l} p_{e2} = x^3 - (25 + 5 \cdot 8 + 8^2)x + 25 \cdot 8 + 5 \cdot 8^2 \end{array} \right.$$