$$x_k \quad -1 \quad 0 \quad 1$$
$$y_k \quad -1 \quad 2 \quad -3$$

$$f_1(x) = Ax^3 + Bx^2 + Cx + D$$
$$f_2(x) = Ex^3 + Fx^2 + Gx + H$$

$1°$

$$f_1(-1) = -1 \Rightarrow -A + B - C + D = -1$$
$$f_1(0) = 2 \Rightarrow D = 2$$
$$f_2(0) = 2 \Rightarrow H = 2$$
$$f_2(1) = -3 \Rightarrow \cancel{A+B} E + F + G + H = -3$$

$2°$

$$f_1'(0) = f_2'(0) \Rightarrow C = G$$
$$f_1''(0) = f_2''(0) \Rightarrow B = F$$

$3°$

$$f_1''(-1) = 0 \Rightarrow -6A + 2B = 0$$
$$f_2''(1) = 0 \Rightarrow 6E + 2F = 0$$

ROZW
$$\begin{cases} A = -2 \\ B = -6 \\ C = -1 \\ D = 2 \\ E = 2 \\ F = -6 \\ G = -1 \\ H = 2 \end{cases}$$

$$\begin{cases} D = 2 \\ H = 2 \\ C = G \\ B = F \\ -A + B - C = -3 \\ E + B + C = -5 \\ -6A + 2B = 0 \\ A = -E \end{cases}$$

$$-A + B - C = -3$$
$$- \quad -A + B + C = -5$$
$$\overline{}$$
$$-2C = 2$$
$$C = -1$$

$$D = 2$$
$$H = 2$$
$$C = -1$$
$$G = -1$$
$$B = F$$
$$-A + B = -4$$
$$\cancel{E + B} = 4$$
$$-6A + 2B = 0$$
$$-3A + B = 0$$
$$- \quad -A + B = -4$$
$$\overline{}$$
$$-2A = 4 \quad A = -2$$

$$B = -6$$
$$12 + 2B = 0$$
$$E = 2$$