27)

x_k	-3	-2	0	4
y_k	0	2	6	-10

$$w(x) = y_0 \cdot \lambda_0(x) + y_1 \cdot \lambda_1(x) + y_2 \lambda_2(x) + y_3 \cdot \lambda_3(x)$$

$$\lambda_0 = \frac{x-x_1}{x_0-x_1} \cdot \frac{x-x_2}{x_0-x_2} \cdot \frac{x-x_3}{x_0-x_3} = \frac{(x+2)\cdot(x-0)(x-4)}{(-1)\cdot(-3)\cdot(-7)} = \frac{x(x+2)(x-4)}{-21}$$

$$\lambda_1 = \frac{x-x_0}{x_1-x_0} \cdot \frac{x-x_2}{x_1-x_2} \cdot \frac{x-x_3}{x_1-x_3} = \frac{(x+3)\cdot x\cdot(x-4)}{1\cdot(-2)\cdot(-6)} = \frac{x(x+3)(x-4)}{12}$$

$$\lambda_3 = \frac{x-x_0}{x_3-x_0} \cdot \frac{x-x_1}{x_3-x_1} \cdot \frac{x-x_2}{x_3-x_2} = \frac{(x+3)(x+2)\cdot x}{7\cdot 6\cdot 4} = \frac{x(x+3)(x+2)}{168}$$

$$\lambda_2 = \frac{x-x_0}{x_2-x_0} \cdot \frac{x-x_1}{x_2-x_1} \cdot \frac{x-x_3}{x_2-x_3} = \frac{(x+3)\cdot(x+2)\cdot(x-4)}{3\cdot 2\cdot -4} = \frac{(x+3)(x+2)(x-4)}{-24}$$

$$w(x) = 0 + \frac{x(x+3)(x-4)}{6} - \frac{(x+3)(x+2)(x-4)}{4} + \frac{5x\cdot(x+3)(x+2)}{84} =$$

$$= -\frac{x^3}{7} - \frac{5x^2}{7} + \frac{8x}{7} + 6$$