Карпушенков Кирилл 4831

13 вариант

$\{(x_i; y_i)\} = \{(-2; -80), (-1; -24), (0; 2), (1; -14), (2; -60)\}$

$$L(x) = \frac{-80(x+1)(x-0)(x-1)(x-2)}{(-2+1)(-2-0)(-2-1)(-2-2)} - \frac{24(x+2)(x-0)(x-1)(x-2)}{(-1+2)(-1-0)(-1-1)(-1-2)} +$$

$$+2\frac{(x+2)(x+1)(x-1)(x-2)}{(0+2)(0+1)(0-1)(0-2)} - 14\frac{(x+2)(x+1)(x-0)(x-2)}{(1+2)(1+1)(1-0)(1-2)} - 60\frac{(x+2)(x+1)(x-0)(x-1)}{(2+2)(2+1)(2-0)(2-1)} =$$

$$= -\frac{80}{24}(x^4 - 2x^3 - x^2 + 2x) + \frac{24}{6}(x^4 - x^3 - 4x^2 + 4x) + \frac{2}{4}(x^4 - 5x^2 + 4) +$$

$$+\frac{14}{6}(x^4 + x^3 - 4x^2 - 4x) - \frac{60}{24}(x^4 + 2x^3 - x^2 - 2x) =$$

$$= x^4 - 22x^2 + 5x + 2$$

$L(x) = x^4 - 22x^2 + 5x + 2$

$L(-2) = 16 - 88 - 10 + 2 = -80$ верно

$L(-1) = 1 - 22 - 5 + 2 = -24$ верно

$L(0) = 0 - 0 + 0 + 2 = 2$ верно

$L(1) = 1 - 22 + 5 + 2 = -14$ верно

$L(2) = 16 - 88 + 10 + 2 = -60$ верно