$$\frac{3}{6} P_{4}(x) \approx 1 + 1.718 \times + 1.477 (x^{2} - x) + ... + 5.073 (x^{2} - 3x^{2} + 2x)$$

$$P_{4}(x) \approx 5.073 x^{2} - 13.74 x^{2} + 10.39 x + 1$$