

$$= \frac{3}{4} \left(\sum_{p=2}^{n-1} (\alpha_p - \alpha_{p-1}) B_p^2(x) + \alpha_3 B_3^2(x) - \alpha_n B_n^2(x) \right)$$

$B_3(x)$ zero outside $[-3, -3+2+1] = [-3, 0]$

$B_n(x)$ zero outside $[n, n+3]$

But domain of $s(x)$ is $[0, n]$

$$\therefore s(x) = \frac{3}{4} \sum_{p=2}^{n-1} (\alpha_p - \alpha_{p-1}) B_p$$

for some reason I'd put $n-1=4$, which caused the summation to go wrong. ✓

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