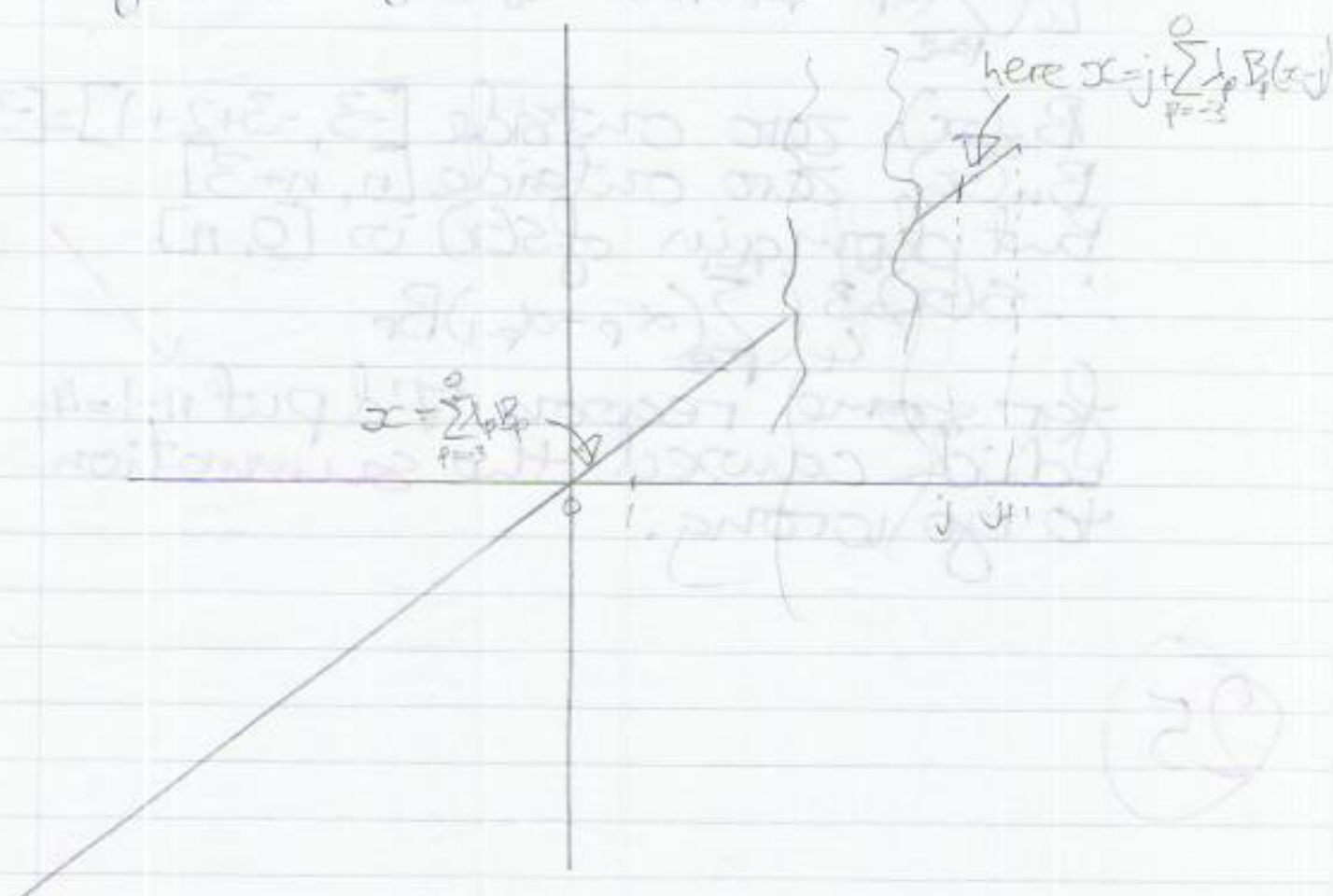


coefficient of λ_p is $8+4p$



We can find x on $[j, j+1]$ simply by adding j + the expression for x in the interval $[0, 1]$ and substituting $x-j$ for x wherever we see it. Hence

$$\begin{aligned}
 x &= j + \sum_{p=3}^{\infty} \lambda_p B_p(x-j) \quad x \in [j, j+1] \\
 &= j + \sum_{p=3}^{\infty} \lambda_p B_{p+j}(x) \quad x \in [j, j+1] \\
 &= j + (-4 B_{j+3}(x) + 0 \cdot B_{j+2}(x) + 4 B_{j+1}(x) + 8 B_j(x)) \\
 &= 4 \binom{j}{4} + (-4 B_{j+3}(x) + 0 \cdot B_{j+2}(x) + 4 B_{j+1}(x) + 8 B_j(x)) \\
 &= 4(j B_{j+3}(x) + j B_{j+2}(x) + j B_{j+1}(x) + j B_j(x))
 \end{aligned}$$