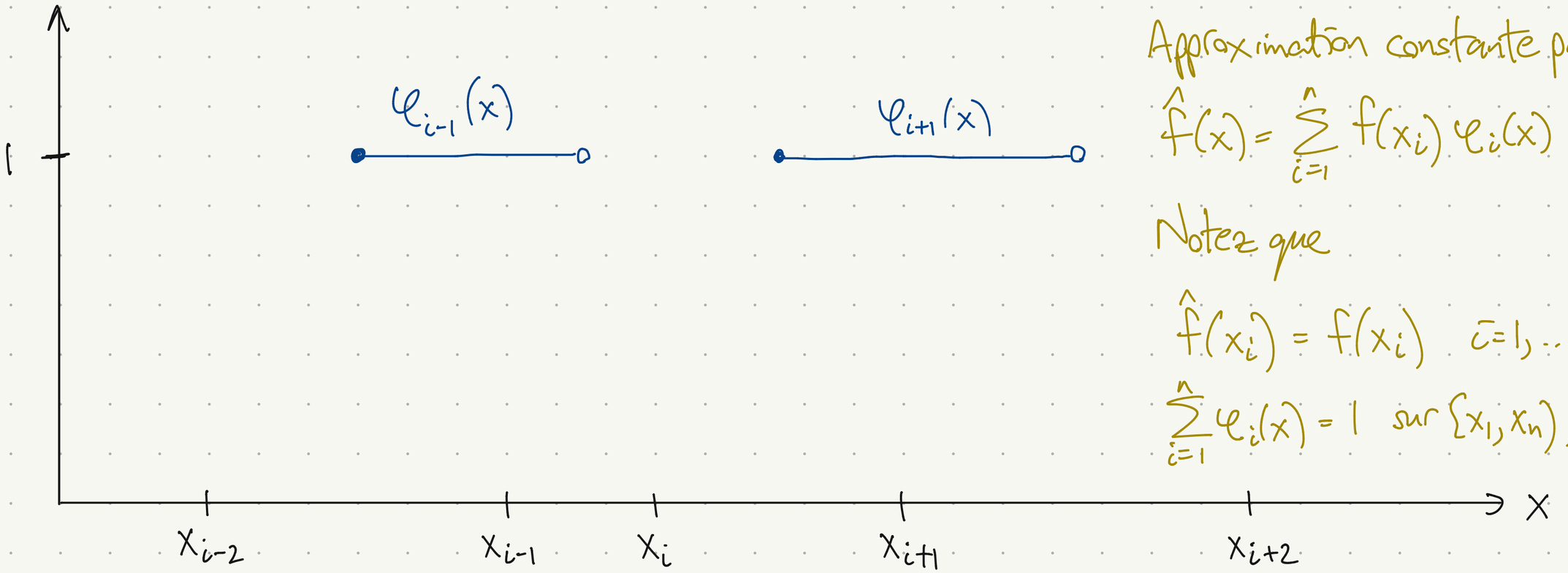


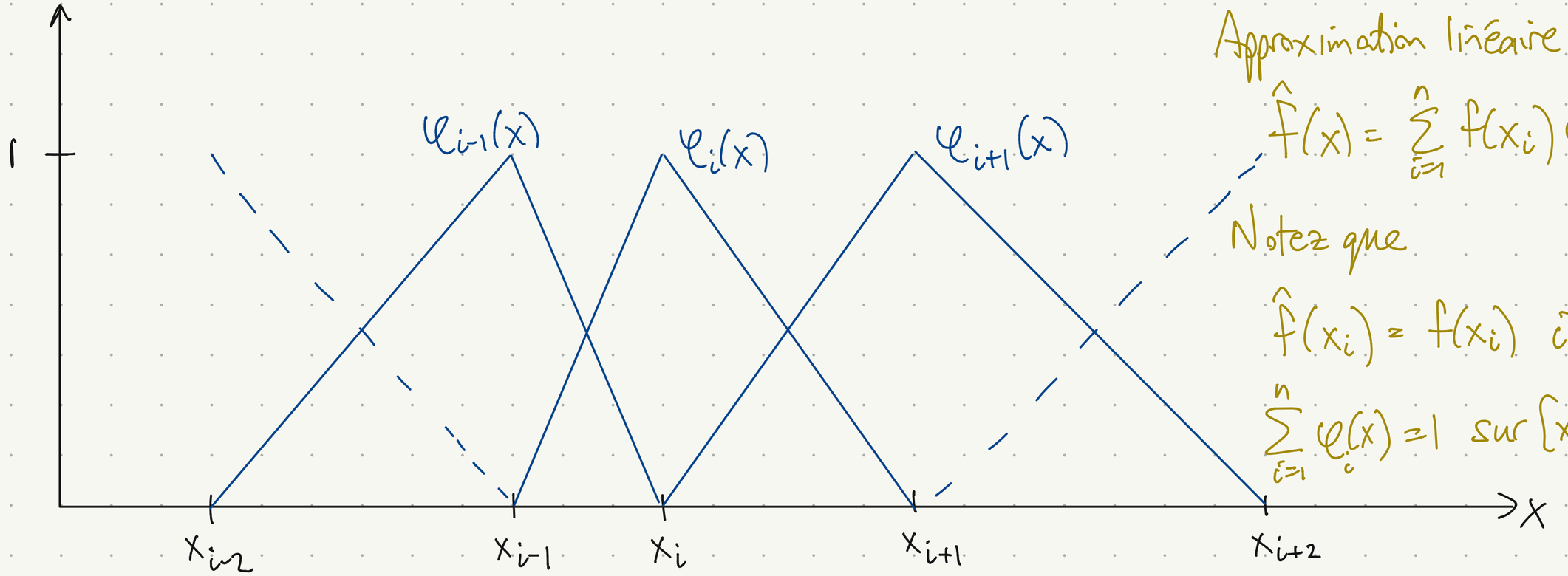
Approximation constante par morceaux

$$\hat{f}(x) = \sum_{i=1}^{n} f(x_i)\,\varphi_i(x)$$

Notez que

$$\hat{f}(x_i) = f(x_i) \quad i=1,\dots,n$$

$$\sum_{i=1}^{n} \varphi_i(x) = 1 \text{ sur } [x_1, x_n), \quad \hat{f} \text{ discontinue}$$



Approximation linéaire par morceaux

$$\hat{f}(x) = \sum_{i=1}^{n} f(x_i)\,\varphi_i(x)$$

Notez que

$$\hat{f}(x_i) = f(x_i) \quad i=1,\dots,n$$

$$\sum_{i=1}^{n} \varphi_i(x) = 1 \text{ sur } [x_1, x_n), \quad \hat{f} \in C^1$$