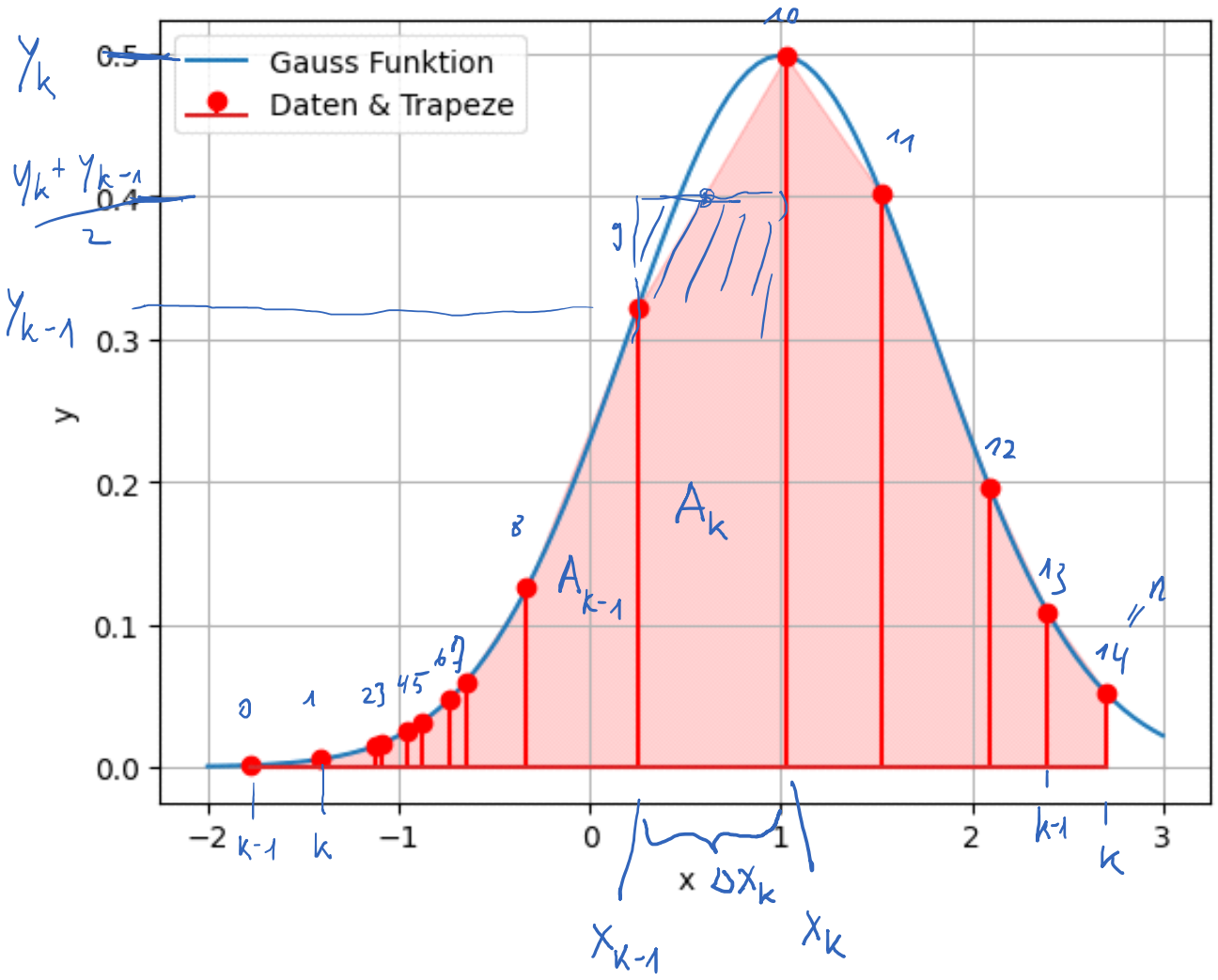
08 Trapezregel mit ungleichmässig verteilten Daten

Freitag, 14. April 2023 12:27

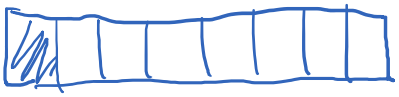


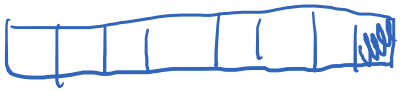
$$A_k = \Delta x_k \cdot \left(\frac{y_k + y_{k-1}}{2} \right)$$

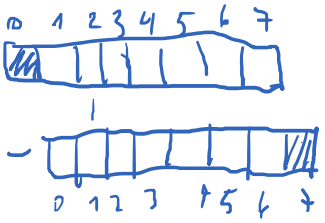
$$A = \sum_{k=1}^{n} A_k = \frac{1}{2} \sum_{k=1}^{n} \Delta x_k \left(y_k + y_{k-1} \right)$$

$$\Delta x_k = x_k - x_{k-1}$$

Vektorisierung

$X[1:] =$ 

$X[:-1] =$ 

$X[1:] - X[:-1] =$ 

$= [\ 1 \mid 2 \mid \ldots \mid 7\ ]$

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