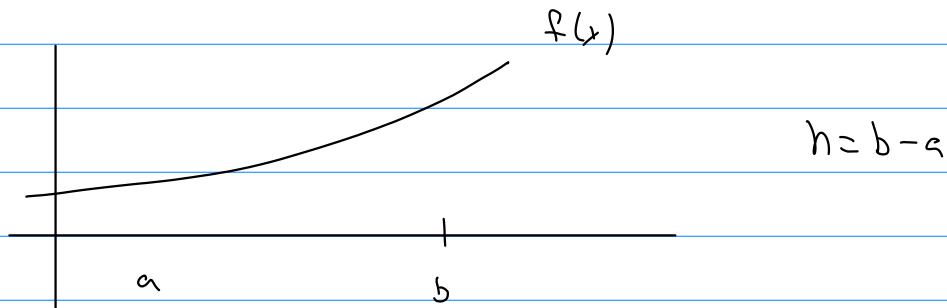


## Trapezoid Rule

Approximate  $f(x)$  as a linear function:



$$\int_a^b f(x) dx \approx \int_a^b \left( \right) dx$$

$$=$$

$$=$$

$$\Rightarrow \begin{array}{ll} x_1 = & w_1 = \\ x_2 = & w_2 = \end{array}$$

Local truncation error:  $e =$

(Global error:  $E =$