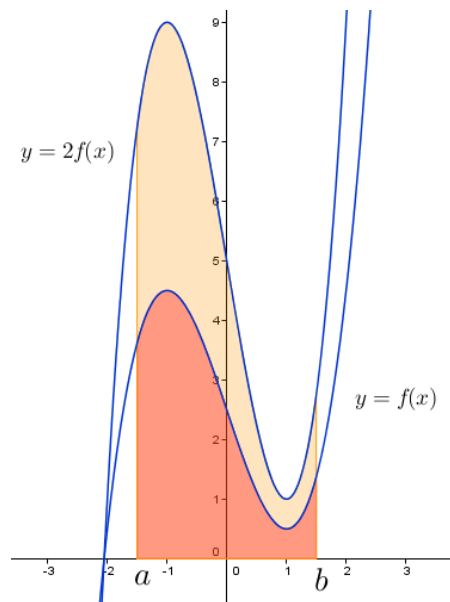


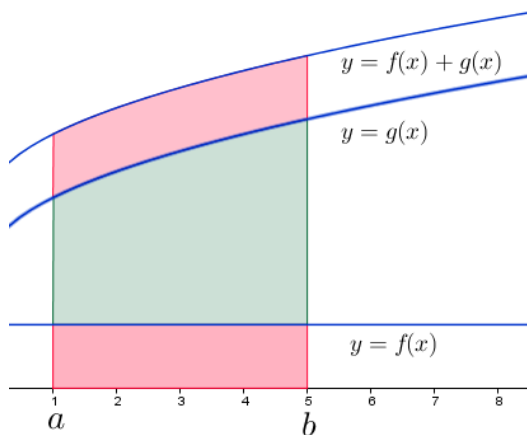
a) Intervall der Breite null:

$$\int_a^a f(x) dx = 0$$



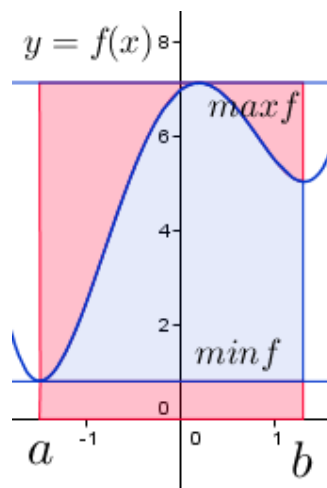
b) Konstante Vielfache:

$$\int_a^b kf(x) dx = k \int_a^b f(x) dx$$



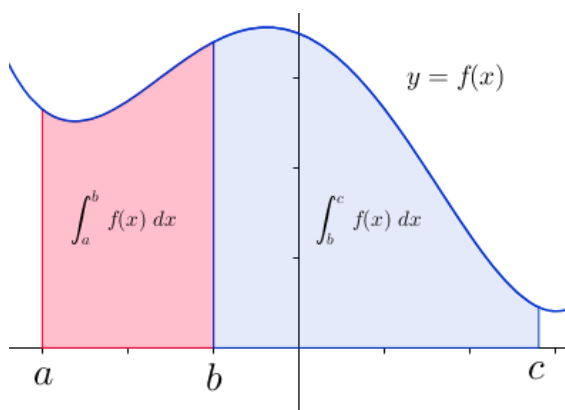
c) Summe (Flächen addieren sich) bzw. Differenz:

$$\int_a^b (f(x) + g(x)) dx = \int_a^b f(x) dx + \int_a^b g(x) dx$$



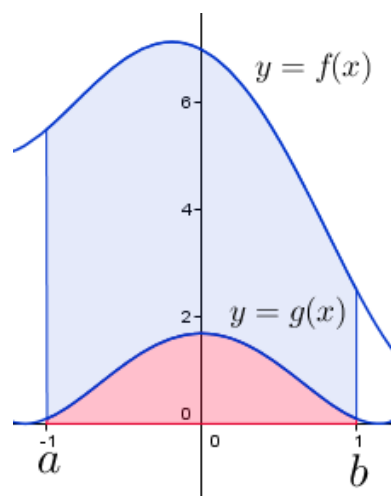
d) Max-Min-Ungleichung:

$$\min f (b - a) \leq \int_a^b f(x) dx \leq \max f (b - a)$$



e) Additivität:

$$\int_a^c f(x) dx = \int_a^b f(x) dx + \int_b^c f(x) dx$$



f) Dominierung:

$$f(x) \geq g(x) \text{ auf } [a, b] \Rightarrow \int_a^b f(x) dx \geq \int_a^b g(x) dx$$