

$$\int_{\alpha}^{\beta} f(\alpha + \beta - x) dx \stackrel{\substack{y = \alpha + \beta - x \Rightarrow dy = -dx \\ \text{για } x = \alpha \Rightarrow y = \beta \\ \text{για } x = \beta \Rightarrow y = \alpha}}{=} - \int_{\beta}^{\alpha} f(y) dy = \int_{\alpha}^{\beta} f(y) dy = \int_{\alpha}^{\beta} f(x) dx$$