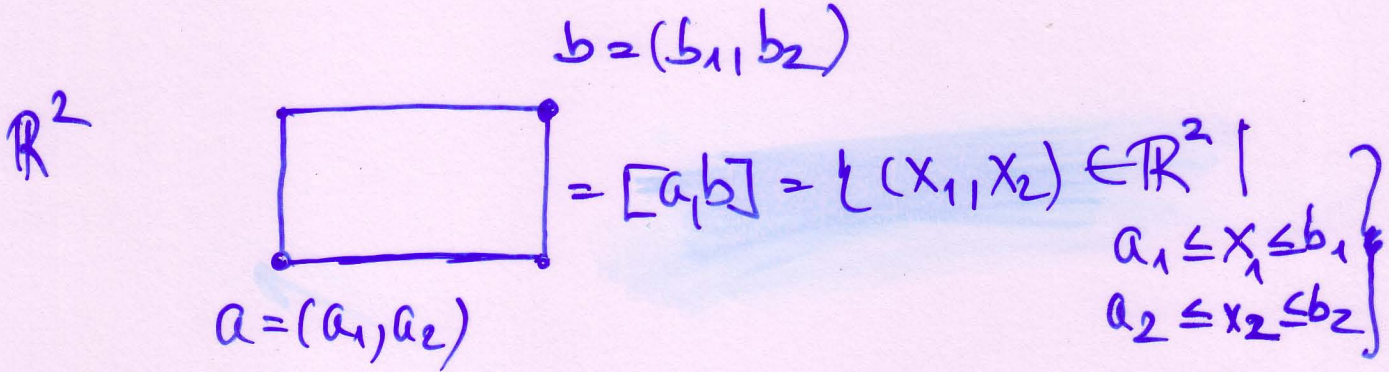


20 Integration auf Intervallen $I \subseteq \mathbb{R}^n$

20.1.1



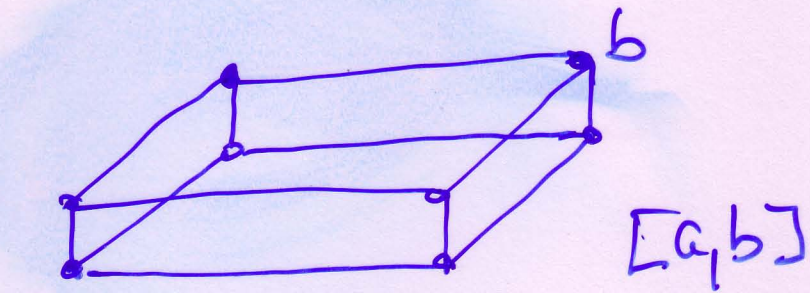
$\int_{[a, b]} = \{ (x_1, x_2) \in \mathbb{R}^2 \mid \begin{matrix} a_1 < x_1 < b_1 \\ a_2 < x_2 < b_2 \end{matrix} \}$

Maß

$\mu([a, b]) = \mu(\int_{[a, b]}) = (b_1 - a_1)(b_2 - a_2)$

Weite $\max \{ b_1 - a_1, b_2 - a_2 \}$

\mathbb{R}^3



$\mu(I) = \prod_{i=1}^n (b_i - a_i)$