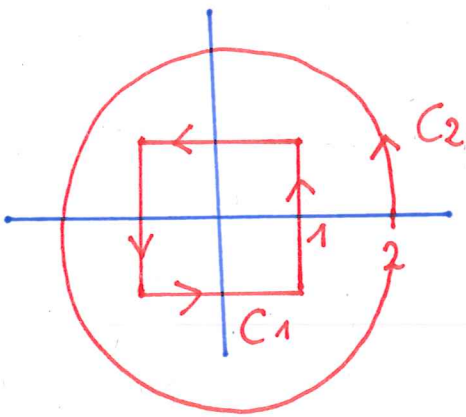


z. Z. $\int_{C_1} f(z) dz = \int_{C_2} f(z) dz$

für $f(z) = \frac{z}{1-e^z}$



Problem. $z=0$

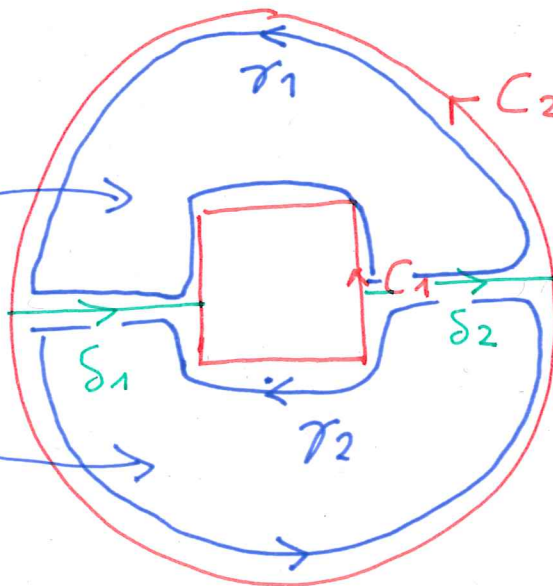
- Gebiet zwischen C_1 & C_2 nicht einfach zshd.

Idee:

$$\gamma_1 = \delta_1 * C_2^+ * \delta_2 * -C_1^+$$

$$\gamma_2 = \delta_1 * C_2^- * \delta_2 * -C_1^-$$

f holomorph,
einfach zshd.



$$\Rightarrow \int_{\gamma_1} f(z) dz = 0$$

$$\int_{\gamma_2} f(z) dz = 0$$

$$\rightsquigarrow \int_{C_1} f(z) dz = \int_{C_2} f(z) dz$$