② Since differential forms are tensors, we have only to consider them over an open set. i.e we have only to compute them locally. ⇒ We may choose small open set to deal with differential forms.

③ If we choose f'_σ, f' nonvanishing over U, then we have $d\frac{f}{f'}$ instead of df.

$$d\frac{f}{f'} = \frac{1}{f'}df.$$

some sort of inverse operation of wedge product

$$\Rightarrow \quad \omega = g(z)\,dz_1\wedge\cdots\wedge dz_n \otimes f'_\sigma$$

$$\updownarrow \otimes ff'_\sigma$$

$$\frac{g(z)\,dz_1\wedge\cdots\wedge dz_n}{f(z)}$$

$$\frac{g(z)\,dz_1\wedge\cdots\wedge dz_n}{f(z)} = \frac{df}{f}\wedge \quad \omega' = \frac{d\frac{f}{f'}}{\frac{f}{f'}}\wedge\omega'$$