

## Exercises

3.147 [250] Let  $D, C$  be non-empty sets and  $f : D \rightarrow C$  a function. Given  $U \subseteq C$  show that

$$f(f^{-1}(U)) \subseteq U ;$$

if  $f$  is surjective show that they are equal; find an example where they are different.