## [7.43 [OFK] (Proposed on 2022-12-13) If the series $\sum_{n=0}^{\infty} a_n$ and $\sum_{n=0}^{\infty} b_n$ con-

Exercises

verge absolutely, show that the series  $\sum_{n=0}^{\infty} c_n$  converges abso-

lutely and

 $\sum_{n=0} c_n = \sum_{n=0} a_n \sum_{n=0} b_n .$