Exercises

E18.7 [1KS]Prerequisites:[1K7].Difficulty:*.Let $g(z) = \sum_{m=0}^{\infty} b_m z^m$ with $b_0 = g(0) \neq 0$. Express formally the reciprocal function $f(x) = 1/g(x)$ as a power series and calculate the coefficients starting from the coefficients b_m. If the radius of convergence of g is non-zero show that the radius of convergence of f is non-zero and that $f(x) = 1/g(x)$ where the two series $f(x), g(x)$ converge.

Solution 1. *[1KT]*