smooth!conjugacy conjugacy!smooth

## Chapter 7. Get straight

**Solution 7.2:** Linearization for maps. (difficulty: medium) The first few terms of the map h that conjugates f to  $\alpha z$ 

$$f(z) = h^{-1}(\alpha h(z)).$$

are determined many places, for example in ref. [14.5].

There are conditions on the derivative of f at the origin to assure that the conjugation is always possible. These conditions are formulated in ref. [1.21], among others.