

Hint for Problem 76-b

Here it matters whether you choose to induct on m or n . However, it matters only in the sense that you need to use more tools in one case. In one case, you are likely to need the rule $(cd)^n = c^n d^n$, which we haven't proved. (However, you might be able to prove that by induction!) In either case, you may find part (a) handy.