

1. Carothers 5.32
2. Carothers 7.12
3. Carothers 7.15
4. Carothers 7.18 (for ℓ_∞ only)
5. Carothers 7.19
6. Carothers 7.22
7. Carothers 7.25
8. Let X be a metric space.
 - a) Assume $f : X \rightarrow X$ be a Lipschitz continuous map with Lipschitz constant $K < 1$. Let $x_1 \in X$ be arbitrary, and define x_n by $x_{n+1} = f(x_n)$. Prove that (x_n) is Cauchy.
 - b) If X is complete, prove there exists a unique solution of the equation $f(x) = x$.
9. Carothers 7.2
10. Carothers 7.5
11. Carothers 7.10