## HW 6 PROBLEMS

From Rudin Chapter 7 solve $15,16,19,20,22$. Also solve the following problems:

Problem 1. Given $f: \mathbb{R} \rightarrow \mathbb{R}$ assume that there is a sequence of polynomials such that $\lim _{n \rightarrow} P_{n}(x)=f(x)$ uniformly on $\mathbb{R}$. Prove that $f$ is a polynomial.

