

**MATH 351: RIEMANN SURFACES AND DESSINS D'ENFANTS
HOMEWORK #1**

Problem 1.1. Find a polynomial $f(x) \in \mathbb{C}[x]$ such that $f(x)$ has a double root (and two simple roots) and $f(x) - 1$ has two (distinct) double roots. Draw the associated dessin, $f^{-1}([0, 1]) \subseteq \mathbb{C}$.