Assignment #5; Due February 20 at start of class

1. Consider the set of indices **NonConstant** = **NC** = { **f** | |**range**(φ_f)| > **1** }. Use Rice's Theorem to show that **NC** is not recursive (not decidable). Note that members of **NC** do not need to converge for all input, but they must converge on at least two input values that produce different output values. Hint: There are two properties that must be demonstrated.

2. Show that **K** $\leq_m$ **NonConstant**, where **K** = { **f** | φ_f(**f**)$\downarrow$ }.