**Assignment #5; Due February 20 at start of class**

1. Consider the set of indices **NonConstant = NC = { f | |range(ϕf)| > 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** ≤**m NonConstant**, where **K = { f |** ϕ**f(f)**↓ **}**.