**Assignment #4; Due February 13 at start of class**

Choosing from among **(REC)** **recursive**, **(RE)** **re non-recursive, (coRE) co-re non-recursive**, **(NRNC)** **non-re/non-co-re**, categorize each of the sets in a) through d). Justify your answer by showing some minimal quantification of some known recursive predicate.

**a.) { f | domain(f) is infinite }**

 **Justification:**

**b.) { f | |range(f)| = 1 }**

 **Justification:**

**c.) { <f,x> | f(x) converges in at most 2\*x+1 steps }**

**Justification:**

**d.) { f | domain(f) converges in at most 2\*x+1 steps for all input x }**

 **Justification:**