

## COSC 4111/5111 3.0—Fall 2001


Date: Oct 26, 2001

Due: TBA in class and Web page.

### Problem Set No. 2

Problems are from “Computability”, **Chapter 3**.

(1) **For all.** Nos. 3, 7, 18, 22, 23, 26, 29, 30.

 In #29 note that you cannot say “by identification of the two variables we obtain  $\{x : \phi_x(x) \downarrow\}$  which is not recursive, etc.”. There are *no* two variables, but only one, as in:  $\{z : \phi_{Kz}(Lz) \downarrow\}$ . In other words, do not confuse  $\langle \dots \rangle$  with  $(\dots)$ .



(2) **Additional problems for the graduate students.** Nos. 1, 10, 12, 37.