1. Using the simple “assignment” language from class, draw the corresponding AST objects that should be generated for the string "A = B + C; B = A". Note this should be similar to a parse tree like we did in class.

2. Finish the recursive descent functions for the simple “assignment” language from class so that it generates the corresponding AST object structures. Write the functions below.
3. Determine the corresponding typing environments for the following MyPL program. The environments should include each denotable object, their corresponding type, and their enclosing environment. Note that a function is a denotable object. Include the “global” environment that contains all of the user-defined type and user-defined function (type) bindings.

```mypl
type T {
    var a = 0
    var b = false
}

fun int f(int x, int y) {
    var r = 0
    if x < y {
        var e = y - x
        r = e
    } else {
        var e = x - y
        r = e
    }
    return r
}

fun void main() {
    var t = new T
    var r = 0
    for i from 0 to 10 {
        var t = i
        if t % 2 == 0 {
            r = r + i
        } else {
            var i = r
            r = f(i, 5)
        }
    }
    t.a = r
    t.b = true
}
```

4. Give an example of a MyPL code snippet that contains the following static errors: (a) a use-before-def error; (b) a “bad” function call; and (c) what you would consider a “hard to find” type error. Your MyPL code snippet should be syntactically well-formed. Mark (using comments) where each of the three errors occur.