

DQE--Fall 2007—Languages (Practice)

1. (50 points)

Given the following pseudo-code procedure:

```
proc switch(x,y : integer) {  
  proc f() : integer {  
    var x : integer;  
    begin  
      z := x;  
      x:= y;  
      return z;  
    end proc f;  
  begin  
    y := f()  
  end proc switch;
```

Describe the effect of the procedure call `switch(i, a[i])` using each of the following parameter passing methods:

- * call-by-value
- * call-by-reference
- * call-by-value-result
- * call-by-name

