CS 313 Parameter Passing Worksheet

1. Consider the following procedure definition and statements (in pseudo-code):

    ```
    procedure proc1(p, q) {
        p := 1;
        q := 2;
    }
    ```

    ```
    i := 0;   a[0] := 0;   a[1] := 0;
    proc1(i, a[i]);
    ```

    For each of the following parameter-passing mechanisms, list the values of i, a[0], and a[1] after the above code has been executed.

    | i     | a[0]   | a[1]   |
    |-------|--------|--------|
    | pass-by-value: | | |
    | pass-by-reference: | | |
    | pass-by-name: | | |

2. Consider the following procedure definition and statements (in pseudo-code):

    ```
    var c, d;                   // global variables
    ```

    ```
    procedure proc2(p, q) {
        c := p * 2;
        q := c - 1;
    }
    ```

    ```
    c := 3;   d := 2;
    proc2(c, d);
    ```

    For each of the following parameter-passing mechanisms, list the values of c and d after the above code has been executed.

    | c     | d     |
    |-------|-------|
    | pass-by-value: | | |
    | pass-by-reference: | | |
    | pass-by-value-result: | | |