

In-Class Problems: procfork

Question 1: What output will be generated by the parent and child processes for the program shown below?

```
int x; /* global variable */
int main()
{
    int rc;
    x = 0;
    rc = fork();
    if (rc == 0) {
        x = 10;
        printf("A: %d\n", x);
    } else {
        printf("B: %d\n", x);
        x = 100;
    }
    printf("C: %d\n", x);
}
```

Question 2: Consider a system with a process, **ProcA**, that executes the program below. Draw the tree rooted at **ProcA** representing the processes created by this program. Every node in the tree should represent a process, and there should be an edge from node A to node B if process A creates process B. Label each node of the tree with the label of the `fork()` system call that created it.

```
int main () {
    fork(); /* Label: B */
    fork(); /* Label: C */
    fork(); /* Label: D */
    return 0;
}
```