

CSCI 315 Operating Systems Design
Fall 2016 - Prof. Felipe Perrone
Activity 3

Consider the code snippet for a process which makes a single call to **fork(2)**:

```
float x; int a[2]; int pid; int status;

int main(int argc, char *argv[]) {
    x = 3.1415926;
    a[0] = 3;
    a[1] = 4;
    if ((pid = fork())) {
        printf("A: a[0] = %d, a[1] = %d, x = %f\n", a[0], a[1], x);
        x = 2.71828; a[1] = 666;
    } else {
        printf("B: a[0] = %d, a[1] = %d, x = %f\n", a[0], a[1], x);
        wait(&status);
        printf("B: a[0] = %d, a[1] = %d, x = %f\n", a[0], a[1], x);
    }
    return(0);
}
```

Determine:

- a) Whether A is the child or the parent process
- b) Whether B is the child or the parent process
- c) The value of status after the call to **wait(2)**
- d) The values of a[0], a[1], and x when A starts
- e) The values of a[0], a[1], and x when A terminates
- f) The values of a[0], a[1], and x when B starts
- g) The values of a[0], a[1], and x when B terminates