

CSCI 315 Operating Systems Design

Activity 5

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;
    pid = fork();
    if (0 != pid) {
        printf("A: a[0] = %d, a[1] = %d, x = %f\n", a[0], a[1], x); //1
        wait(&status);
        printf("A: a[0] = %d, a[1] = %d, x = %f\n", a[0], a[1], x); //2
    } else {
        printf("B: a[0] = %d, a[1] = %d, x = %f\n", a[0], a[1], x); //3
        x = 2.14;
        a[0] = 666;
        printf("B: a[0] = %d, a[1] = %d, x = %f\n", a[0], a[1], x); //4
        exit(1);
    }
    return(0);
}
```

Answer the following questions:

- Which is the parent process: A or B?
- Which is the child process: A or B?
- The output produced by each of the lines (1), (2), (3), and (4)
- The value of `status` after the call to **wait(2)**