CSCE 330 Fall 2015
Quiz 4
Assigned Tuesday, 15-09-15

Consider the following incorrect Prolog program.

```
% factorial(N,M) holds when M=Nx(N-1)x...x2x1 (and when N=0 and M=1).
factorial(0,1).
factorial(N,F) :- N>0, factorial(N,F1), F is N*N.
```

1. Does this program terminate? **Answer:** No.(It actually runs out of memory.)

2. Correct the second clause of the program so that it correcly computes the factorial. **Answer:**

```
factorial(0,1).
factorial(N,F) :- N>0,  N1 is N-1, factorial(N1,F1), F is N*F1.
```