Consider the following incorrect Prolog program.

\% factorial(N,M) holds when \( M = N \times (N-1) \times \ldots \times 2 \times 1 \) (and when \( N = 0 \) and \( M = 1 \)).

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

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

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

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