

Mcs 260 Spring 2012, Lowman, n!

Iteration:

```
def fac(n):  
    f = 1  
    for i in range(2, n+1):  
        f = f * i  
    return f
```

i
[2, 3, 4] for n = 4

Test with walk-thru for $f(4)$

n	f = f * i	i	Action
4	1	2	
-	1 * 2 = 2	3	
-	2 * 3 = 6	4	
-	6 * 4 = 24	-	Return 24 ✓

Recursion:

```
def fac(n):  
    if n == 0:  
        return 1  
    return n * fac(n-1)
```

Stack Trace for fac(3)

