

# Week 11 handin

base case:  $\text{fact}(1) = 1$

assume:  $\text{fact}(n-1)$  is correct

then  $\text{fact}(n) = n \cdot \text{fact}(n-1) \Rightarrow n \cdot (n-1)! = n!$

and because we decrement with 1 we'll hit the base case

therefore, the recursive function does what we designed it to do