Lecture 34: Factorial

\[ n! = n \cdot (n-1) \cdot (n-2) \cdot (n-3) \cdots 1 \]

\( n \) needs to be positive int \( \geq 1 \).

**Define** \( 0! = 1 \)

\[ 4! = 4 \cdot 3 \cdot 2 \cdot 1 = 24 \]
\[ 3! = 3 \cdot 2 \cdot 1 = 6 \]
\[ 2! = 2 \cdot 1 = 2 \]
\[ 1! = 1 \cdot 1 = 1 \]

0! defined as 1 “base case” problem boils down to a fixed number: 1