Class Exercise

Let $f : \mathbb{Z}^+ \to \mathbb{Z}$ be defined by

- $f(1) = 1$
- $f(n) = 1 + \sum_{i=1}^{n-1} f(i)$ if $n \geq 2$

For example, $f(2) = 1 + f(1) = 2$.
Do the following:

- Compute $f(3), f(4)$, and $f(5)$.
- Come up with a closed form solution for $f(n)$.
- Prove it correct by strong induction on n.