

Inductive hypothesis, continued

- ▶ $f(n, m) = n + m$ if $n = 1$ or $m = 1$,
- ▶ $f(n, m) = f(n - 1, m) + f(n, m - 1)$, otherwise

So, our inductive hypothesis will be:

$$P(K) : f(n, m) \geq n + m \text{ for all positive integers } n, m \text{ with } n + m \leq K$$

Note that we are inducing on K , and defining K to be the sum of the parameters to the function f .