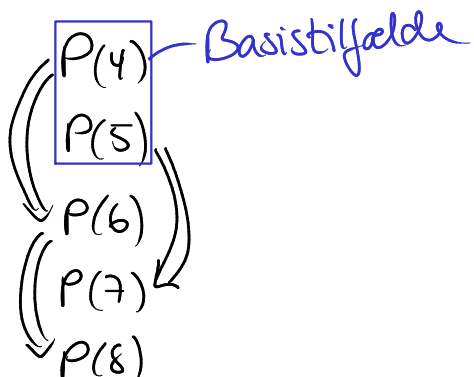


Sidste gang:

- Stærk induktion
- Rekursive definitioner
- Struktural induktion

$P(n)$: n kan skrives som en sum af 2-taller og 5-taller.



Fibonacci-tallene:

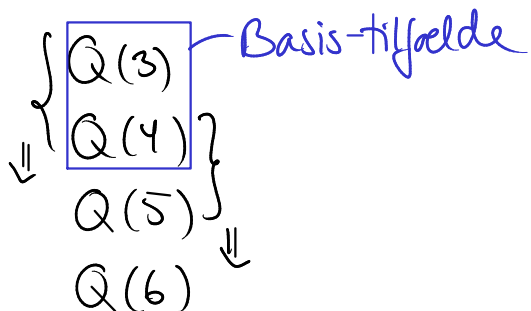
$$f_0 = 0, f_1 = 1$$

Basis-skridt

$$f_n = f_{n-1} + f_{n-2}, \quad n \geq 2$$

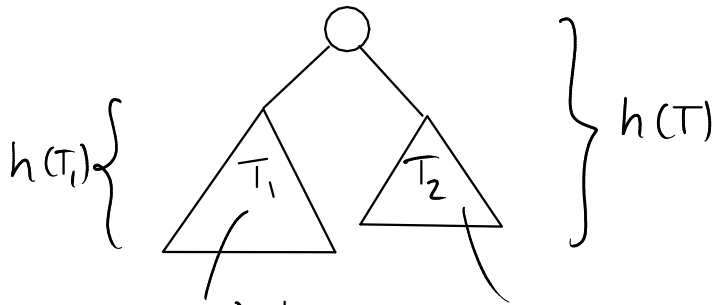
Rekursivt skridt

$$Q(n): f_n > \varphi^{n-2}$$



Fulde binäre träer :

$$n(T) \leq 2^{h(T)+1} - 1$$



$$\begin{aligned} n(T_1) &\leq 2^{h(T_1)+1} - 1 \\ &= 2^{h(T)} - 1 \end{aligned}$$

$$\begin{aligned} n(T_2) &\leq 2^{h(T_2)+1} - 1 \\ &\leq 2^{h(T_1)+1} - 1 \\ &= 2^{h(T)} - 1 \end{aligned}$$

$$n(T) = 1 + 2 \cdot (2^{h(T)} - 1) = 2^{h(T)+1} - 1$$