

$$T(n) = T(n-1) + T(n-2)$$

$$\approx f(n) \Rightarrow T(n) = \frac{\phi^n - \bar{\phi}^n}{\sqrt{5}}$$

$$\text{For } -1 < \bar{\phi} < 0 \Rightarrow T(n) = \Theta(\phi^n)$$