

**Problem:** Computing powers  $A^n$  of

$$A = \begin{pmatrix} 0 & 1 \\ 1 & 1 \end{pmatrix}$$

and

$$A^n \begin{pmatrix} 1 \\ 1 \end{pmatrix}$$

$n$  is either symbolic or a number (e.g.,  $n = 3$ ,  $n = 10$ ,  $n = 100$ , ...)

## References