Binary Matrix Exponentiation

Q: Splendid Function

$$\begin{bmatrix} 1 & 1 \\ 1 & 0 \end{bmatrix}^n = \begin{bmatrix} F_{n+1} & F_n \\ F_n & F_{n-1} \end{bmatrix}$$

$7 = 111_2$ $\quad$ $10 = 1010_2$ $\quad$ $\log_2$

F_2 F_1 F_0 $\quad$ F_3 F_1