Using the characteristic equation, solve the following recurrence (note the minus sign):

\[ f(n) = -f(n-1) + 2f(n-2) \]

with \( f(0) = 4 \) and \( f(1) = 1 \).

Characteristic equation is \( x^2 + x - 2 \).
Roots are 1 and \(-2\).
Formula is \( 3 + (-2)^n \).