递归方程

$f(n) = 6f(n-1) - 8(n-2)$
$f(1) = 1$
$f(2) = 0$

求下面特征方程的解

$$n^2 - 6n + 8 = 0$$

得到 n = 2,4

$$f(n) = C1 * 2^n + C2 * 4^n$$

根据初始条件
$f(1) = C1 * 2 + C2 * 4 = 1$
$f(2) = C1 * 4 + C2 * 16 = 0$
得
$C1 = 1$
$C2 = -\frac{1}{4}$

$$f(n) = 2^n - \frac{1}{4} * 4^n = 2^n - 4^{n-1}$$