f(0) = a

F(n) = f(n-1)^2

F(n-1) = f(n-2)^2

F(n-2)^2 = n^2 -4n + 4

F(n) = f(n-1) + 2n – 3

N^2-4n + 4 + 2n – 3 = **n^2 -2n + 1**