$u_{n+1}=2u_n+1, u_1=4$

$4, 9, 19, 39, 79, \ldots$

$u_{n+2}=u_{n+1}+u_n, u_1=0, u_2=1$

$0, 1, 1, 2, 3, \ldots$

$u_{n+1}=3u_n-2, u_1=4$

$4, 10, 28, 82, 244, \ldots$

$3, 4, 7, 16, 43, \ldots$

$u_{n+1}=u_n^2+1, u_1=4$

$u_{n+1}=2u_n-2, u_1=4$

$3, 0, -3, -6, -9, \ldots$

$u_{n+1}=u_n-3, u_1=3$

$-3, 1, 13, 49, 157, \ldots$

$u_{n+1}=3u_n+10, u_1=-3$

$u_n+1=3u_n-5, u_1=3$

$2, 13, 101, 805, 6437, \ldots$

$-3, -5, -9, -17, -33, \ldots$

$u_{n+1}=2u_n+1, u_1=-3$

$4, 17, 290, 84101, 7072978202, \ldots$

$4, 7, 13, 25, 49, \ldots$

$2, 4, 14, 64, 318, \ldots$

$u_{n+1}=9-u_n, u_1=2$

$4, 6, 10, 18, 34, \ldots$

$4, 8, 56, 3128, 9784376, \ldots$

$u_{n+1}=u_n^2-8, u_1=4$

$1, 3, 7, 15, 31, \ldots$

$4, 9, 24, 69, 204, \ldots$

$u_{n+1}=3u_n-3, u_1=4$

$u_n+1=8u_n-3, u_1=2$

$u_{n+1}=u_n+1, u_1=2$

$-3, -1, 3, 11, 27, \ldots$

$u_{n+1}=2u_n+5, u_1=-3$

$3, 7, 15, 31, 63, \ldots$

$u_{n+1}=2u_n+1, u_1=3$

$u_n+1=2u_n-1, u_1=4$

$2, 3, 4, 5, 6, \ldots$

$u_n+1=2u_n+1, u_1=1$

$3, 14, 69, 344, 1719, \ldots$

$u_{n+1}=5u_n-1, u_1=3$

$4, -7, 15, -29, 59, \ldots$

$u_{n+1}=1-2u_n, u_1=4$

$2, 4, -2, 16, -38, \ldots$

$u_n+1=10-3u_n, u_1=2$