Exercise to Solve

Q1: Find the first five terms of the sequence defined by each of these recurrence relations and initial conditions

a) $a_n = 6a_{n-1}$, $a_0 = 2$

b) $a_n = a^2_{n-1}$, $a_1 = 2$

c) $a_n = a_{n-1} + 3a_{n-2}$, $a_0 = 1$, $a_1 = 2$

Q2: Find the first six terms of the sequence defined by each of these recurrence relations and initial conditions

a) $a_n = -2a_{n-1}$, $a_0 = -1$

b) $a_n = a_{n-1} - a_{n-2}$, $a_0 = 2$, $a_1 = -1$

c) $a_n = a_{n-1} - a_{n-2} + a_{n-3}$, $a_0 = 1$, $a_1 = 1$, $a_2 = 2$

d) $a_n = na_{n-1} + a^2_{n-2}$, $a_0 = -1$, $a_1 = 0$