ICS 252–Discrete Structures

Quiz: 5　　　　　**Section: 2**　　　　　**Time: 10 minutes**

Name: _____　　　　　ID#: _____

Question 1: [**3 marks**] Find a recurrence relation for computing the n-th term for each of the following sequences of numbers.

　a) 2, 3, 5, 9, 17, 33, 65, ...

　b) 0, 1, 1, 2, 3, 5, 8, 13, ...

Question 2: [**7 marks**] Let $a_0 = 3$, $a_1 = 1$, and $a_n = 4a_{n-1} - 4a_{n-2}$, for $n \geq 2$. Solve the recurrence relation.