Disco II - Quiz 13

Name:_____ Box #_____

1. Recurrence Equations

1. Motorcycles, compact cars and big cars are to be parked in a parking lot. Motorcycles require one space, compact cars two spaces and big cars three spaces. Let a_n be the number of ways of parking cars in a $1 \times n$ parking lot.

   a Find a_1, a_2, a_3.

a_1	
a_2	
a_3	

   b Find the recurrence equation for a_n.

   c Find a_0 and a_4.

   d What equation must your solve to find a_n in general? Does it have any easily found roots?