Algorithm:
   Step 1: Select the first song and first CD
   Step 2: From the selected song, keep putting songs the selected CD, let us say CD_i, in the given order until next song, let us say song k, have to be split across CD_i and the next CD, CD_{i+1}.
   Step 3: Select the next song, song k and the next CD, CD_{i+1}. Repeat step 2 until the last song is included on a CD.

Proof: Assume there exist a solution that use a better algorithm, which means the solution produce a result that needs less CDs than our algorithm. Since the order of CDs is fixed and the order of songs being record is given, the order of CDs and songs in both better solution and our solution should be same. Assume the result of the solution is x number of CDs, and our solution needs $x + i$ CDs. This means the songs on i CDs in our solution can be stored in other CDs. Because of the limitation of order, those songs can only be stored in front or later CDs in given order. If any of those songs is stored on the front CD, this is impossible since our method is for each CD, store as many songs on a CD as possible. The songs on later CD could not be stored on front CD. If any of those songs is stored on the later CD, to achieve using less CDs, all songs on that CD should be stored on the later CD since we just proved it is impossible to store songs on the front CD. This is same as storing songs on later CD on front CD since the length each CD can hold m minutes. However, we just prove that it is impossible to store songs on the front CD. Thus, there is no way to use less CD than our method. Therefore, there does not exist a solution that is better than our mothed. Our algorithm is optimal.