1. The leave-one-out error for the first instance is 0. Since , first instance is not a support vector, and therefore does not affect the optimal hyperplane if left out.

For instances 2 and 3, we firstly calculate slack variables , and . We also know that the maximum length of feature vector is 1, that is, . We can then calculate the necessary conditions of leave one out error as: , . Thus, instance 2 cannot produce a leave-one-out error, while instance 3 could produce a leave-one-out error.

Thus, the upper bound of leave-one-out error for instance 1 and 2 is 0, the upper bound of leave-one-out error for instance 3 is 1.