**Notes**

Mark the top sheet with your name and the names of any students with whom you collaborated. If you didn't collaborate with anyone, mark your collaborators as "None." Begin each problem on a new sheet of paper.

Remember, your goal is to communicate. Full credit will be given only to correct solutions which are described clearly. Convoluted and obtuse descriptions will receive low marks.

To complete your homework, you may ONLY consult the following material:

1. lecture slides posted on the class webpage
2. course notes you or others took during lecture
3. the required text (CLRS)
4. websites that may clarify the concepts covered in the material

Please stop by my office for any question.

**Name:**

**ID:**

**Problem Set 1 (25 pts)**

1. (12 points) Write in python the AdaBoost and check the result with the binary version of IRIS dataset (consider the most difficult separation)
2. (13 points) Write in python DBSCAN and by using IRIS dataset compare the DBSCAN results with ones of K-Means (for K-means you can use the Scikit implementation).