Dictionary (terms used in the class)

<u>Class 1</u>

- closed set =
- concave =
- cone =
- constraints =
- convex =
- feasible =
- feasible region =
- global minimizer =
- gradient =
- infeasible =
- inner product =
- linear programming =
- local minimizer =
- necessary optimality conditions =
- nonlinear programming =
- normal cone =
- objective function =
- optimality conditions =
- optimal solution =
- polar cone =
- positive definite =
- positive semidefinite =
- stationary point =
- tangent cone =
- transpose =
- unconstrained =

<u>Class 2</u>

- convex combination =
- convex hull =
- orthonormal basis =

Class 3
- active constraint =
- constraint qualifications =
- linear independent =
- linearized cone =
- nonsingular matrix =

Class 4
- bounded =
- duality gap =
- dual problem =
- Lagrange multipliers =
- primal problem =
- strong duality =
- unbounded =
- weak duality =

Class 5
- boundary =
- closure =
- interior =
- projection =

Class 6
- branch-and-bound method =
- integer programming =
- Kernel function =
- lower bound =
- overfitting =
- regression function =
- regularization =
- relaxation problem =
- support vector regression =

Class 7
- separable =
- robust optimization =
- uncertainty set =
- second-order cone programming = 2