Optimization Study Group Activity
(Groups of 3 or 4 people)

Purpose of activity: Gain a deeper understanding of the topic by solving a problem on your own and then teaching it to your peers.

Due Date: End of Thanksgiving Break (25th at midnight)

Individual Portion: Everybody in the group should choose ONE of the problems below. Solve your problem on your own before you meet with your group.

1. Find all maxima, minima, maximum values, minimum values, and graph $y = 2x^3 + 3x^2 + 6x + 4$

2. Find all maxima, minima, maximum values, minimum values, and graph $y = 4x^3 - 9x^2 - 12x + 3$

3. Find all maxima, minima, maximum values, minimum values, and graph $y = 2x^3 + 3x^2 - 6x + 4$

4. Find all maxima, minima, maximum values, minimum values, and graph $y = x^4 + 4x^3 + 2x^2$

Group Portion: Take turns teaching your problem to the rest of the group. Use a whiteboard to clearly show each step to your groupmates. Record your teaching using a phone or camera.

Assessment: Upload your video to Blackboard.