## Indefinite Integrals 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 (25<sup>th</sup> 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  $\int (x^4 + 3x^2)(x^5 + 5x^3)^2 dx$
- 2. Find  $\int 4x \sin(x^2) dx$
- 3. Find  $\int 5x e^{5x^2} dx$
- 4. Find  $\int \frac{1}{1+(2x)^2} dx$

**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.