Calculus III Project:  #1 Multivariable Differentiation

Select your project team:  (Recommended: 4 students.)  Working Sec: ____________

1. Name: ___________________________  Sec: ________
   Email: ___________________________  Phone: _______________________

2. Name: ___________________________  Sec: ________
   Email: ___________________________  Phone: _______________________

3. Name: ___________________________  Sec: ________
   Email: ___________________________  Phone: _______________________

4. Name: ___________________________  Sec: ________
   Email: ___________________________  Phone: _______________________

Indicate your preference on projects:  (1 for first choice down to 8 for last choice.)

______  Newton’s Method in 2 Dimensions (10.3) requires a Maple program
______  Gradient Method of Finding Extrema (10.4) requires a Maple program
______  Seeing a Blimp (10.5)
______  The Trash Dumpster (10.6)
______  Generalized Diameters (10.7)
______  Locating an Apartment (10.8)
______  Minimal Rectangles and Triangles (Stewart p. 792 #5 + similarly w. triangles)
______  Exact Gradient Method (Stewart p. 793 #11 or p. 866 #2) requires a Maple program
Calculus III Project:  #2 Multivariable Integration

Select your project team: (Recommended: 4 students.)  Working Sec: __________

1. Name: _____________________________  Sec: __________
   Email: _____________________________  Phone: _____________________________

2. Name: _____________________________  Sec: __________
   Email: _____________________________  Phone: _____________________________

3. Name: _____________________________  Sec: __________
   Email: _____________________________  Phone: _____________________________

4. Name: _____________________________  Sec: __________
   Email: _____________________________  Phone: _____________________________

Indicate your preference on projects: (1 for first choice down to 8 for last choice.)

- Gauss’ Law and Ampere’s Law (9.9, 9.10)
- Interpretation of Divergence and Curl (9.11, 9.12)
- Skimpy Donut (10.9)
- Volume Between a Surface and Its Tangent Plane (10.10)
- Hypervolume of a Hypersphere (10.11)
- Average Temperatures (10.12)
- Center of Mass of Planet X (10.13)
- Steradian Measure (10.14)