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.)

_____   10.3   Newton's Method in 2 Dimensions, requires a Maple program

_____   10.4   Gradient Method of Finding Extrema, requires a Maple program

_____   10.5   Seeing a Blimp

_____   10.6   The Trash Dumpster

_____   10.7   Generalized Diameters

_____   10.8   Locating an Apartment

_____   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.)

_____   9.9, 9.10   Gauss' Law and Ampere's Law

_____   9.11, 9.12   Interpretation of Divergence and Curl

_____   10.9   Skimpy Donut

_____   10.10   Volume Between a Surface and Its Tangent Plane

_____   10.11   Hypervolume of a Hypersphere

_____   10.12   Average Temperatures

_____   10.13   Center of Mass of Planet X

_____   10.14   Steradian Measure