Chapter 12 (Exam 2) Review

- $\sim$7 questions

- Get comfortable with "gnarly" computations. The best way is to show work while practicing. See Exam 1 solutions for other shortcuts in work.

- No calculators.

- Equations of plane, intersection of planes. Make sure you know relevant formulas (e.g., cross product).

- Recall how to parametrize lines and curves.

- What does the gradient vector represent? Know the relationship between the gradient vector and the tangent plane.

Chapter 12 (Exam 2) Review (cont.)

- Linear approximation formula and how to use it.

- Chain Rule for functions of more than one variable. Partial derivatives, when to use ∂ versus when to use d.

- Make sure your notation is correct.

- Limits for functions of two variables.

- Equation of a tangent plane.

- Recognize graphs and/or contour plots. You won't need to draw any graphs.

- Critical points, local maxima/minima, saddle points, Extreme Value Theorem.