

Math 4410 Advanced Calculus II

Today: Surface integrals

Wednesday: Green's Theorem and Stokes' Theorem

Friday: Review, Exam 3 corrections due.

Extra Review Session: Monday 4-5 Sc 129

Friday, May 5 1-2:50 pm Final Exam

Reminder: You need to present one more theorem in class this semester.

HW 33

Due Wednesday, April 26, 2006, by 5pm.

1. Define surface integral.
2. Write an integral that would give the area of a surface.
3. Write an integral that would give the mass of a surface.
4. Find the area of the region of the plane $z = 2x - 4y$ that lies above the triangle with vertices $(2,2)$, $(2,5)$ $(6,5)$.
5. Let S be the top half of a sphere of radius a . Let $\delta(P)$ be the distance from a point P on the sphere to the xy -plane. Evaluate $\int_S \delta(P) dS$ Source: *Calculus and Analytic Geometry*, Stein