

## 3450:438/538-001 **Who Are You?** Fall 2007

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Please fill out this survey.

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1. What is your name?
2. How do you want me to address you (e.g. Bob, Mrs. Estafen, Ruihua, etc.)?
3. During the semester I may contact you at your uakron.edu email address, which is on my class roster. I will assume you check your email regularly. If you prefer to use another email address, make sure that you set up forwarding as described on my web page <http://www.math.uakron.edu/~gross/AEMI/aem.html> .
4. What is your major or field of study?
5. Are you in the Honors College?
6. When and where did you take differential equations?
7. When and where did you take linear algebra?
8. If you have taken math classes at Akron U., which professor did you have most recently?
9. What graphing calculator(s) do you own and know how to use, if any?
  
10. Are you planning to take a qualifying exam in matrices and vector calculus as part of your engineering graduate program?
11. Please address the problem on the back of this page. Attach an additional sheet if necessary.
12. Please tell me something more about yourself.

Verify that Stokes's Theorem is true for the vector field  $\mathbf{F} = yz\mathbf{i} + 2xz\mathbf{j} + e^{xy}\mathbf{k}$  and the circle  $\mathcal{C}$  given by  $x^2 + y^2 = 16$ ,  $z = 5$ , enclosing the disk  $S$ . That is, confirm that  $\int_{\mathcal{C}} \mathbf{F} \cdot d\mathbf{r} = \iint_S \nabla \times \mathbf{F} \cdot d\mathbf{S}$ .

(If you are not able to do so, please explain which parts of the problem are familiar to you if any, and convey how deeply you understand those parts. Be as specific as possible because any comments you can provide here will shed light on the class's calculus background. For example, you might say, "I think I learned how to do integrals with dots in them in electrostatics, but I never really understood them" or "I know how to compute  $\nabla \times \mathbf{F}$ , but then I get stuck" or "I don't think I've ever seen that upside-down triangle in my life!")