

Name\_\_\_\_\_ ID\_\_\_\_\_ Section\_\_\_\_\_

MATH 253

Maple Quiz

Spring 2003

Sections 501

P. Yasskin

1	/25
2	/25

### TO BEGIN THE EXAM:

1. WRITE your NAME, ID and SECTION at the top of this paper.
2. TYPE your NAME, ID and SECTION at the top of the Maple Worksheet.
3. EXECUTE **with(VecCalc): VCalias:**
4. SAVE your worksheet as **yourlastname.mws** NOW and AFTER EACH PROBLEM.
5. NUMBER EACH PROBLEM.
6. Decimal values are OK.

### THE EXAM:

1. Find the equation of the plane tangent to the graph of the function  $f(x,y) = x^2y^4$  at the point  $(x,y,z) = (2, 1, 4)$ . Plot the function and its tangent plane in one plot using two different colors and normal axes.
2. Compute the mass and  $z$ -component of the center of mass of the hemisphere  $0 \leq z \leq \sqrt{4-x^2-y^2}$  if the density is  $\delta = z$ . (Be sure to display your integrals first.)

### TO TURN IN YOUR EXAM:

1. Reduce the font to the first magnifying glass. Reduce any plots to about 1.5 inches high.
2. SAVE your file again.
3. EXECUTE: File + Print + Output to File + Print to make a postscript file in your home directory.
4. PRINT your file using **X-Print**.
  - Open a terminal window. (The monitor with a seashell on the bottom toolbar)
  - TYPE: **xprint -J holdout -C Yasskin -d blocker yourlastname.ps** (or the EXACT name of your postscript file)
  - Press RETURN
  - The system will ask for your xprint userid and password.
5. EXECUTE: **Edit + Remove Output + From Worksheet**
6. SAVE your file again.
7. EMAIL your file as follows:
  - To: **yasskin@calclab.math.tamu.edu**
  - Attachment: **yourlastname.mws** (or the EXACT name of your Maple file)
  - Subject: **Sec 501**
  - Call Dr. Yasskin or your TA over to check your mailing.
  - Send the mail.
8. Turn in this paper, with your name on it, as a grading sheet.
9. Before you leave, check that Dr. Yasskin has received your printout and your email.