| Name         | ID         | Section    |   |     |
|--------------|------------|------------|---|-----|
|              |            |            | 1 | /20 |
| MATH 253     | Maple Quiz | Fall 2003  | 2 | /20 |
| Sections 504 |            | P. Yasskin |   | /30 |

## 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.** Compute the mass of the half cylinder  $x^2 + y^2 \le 9$  with  $y \ge 0$  for  $-1 \le z \le 1$  if the density is  $\rho = y$ .
- **2.** Find the vector perpendicular to the surface  $x^2y + y^2z^3 = 22$  at the point (3,2,1). Find the parametric equation of the line thru (3,2,1) perpendicular to the above surface. Plot the surface in red for  $0 \le x \le 6$ ,  $0 \le y \le 4$ ,  $0 \le z \le 2$  and the line in blue and display them in one plot, rotated so you can see both the surface and the line.

## 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 prompt >\_ 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.

| • \ | Write the Print Identifier here: |
|-----|----------------------------------|
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- 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 504
  - 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.