### 2.997 Optical Engineering <br> Fall '99 <br> Assignment \#5 <br> Posted Nov. 1, 1999 - Due Nov. 10, 1999

1. JG problem 2-3 (p. 28).
2. JG problem 2-4 (p. 28).
3. JG problem 2-5 (p. 28).
4. JG problem 2-10 (p. 29).
5. JG problem 2-14 (p. 30-31).
6. JG problem 3-5 (p. 61).
7. A two dimensional function has value 1 inside an ellipse of semi-axes $a, b$, and value 0 outside the ellipse. The ellipse is centered on the origin of coordinates and the semi-axes are oriented parallel to the Cartesian axes. Find the 2D Fourier transform of this function.
