93. If $f(x,y) \neq 0$ on the bounded region R, then its average value on R cannot be zero.

94. The value of a double integral should be interpreted as the volume of the solid bounded by the graph of the integrand and one of the coordinate planes.

95. In order to find $\iint_R e^{\frac{x^2+y^2}{2}} dA$ on the rectangular region $R = \{(x,y) \mid |x| \leq a, |y| \leq b, a,b > 0\}$, the use of Cartesian coordinates is recommended.

96. In the cylindrical coordinate system, r can be negative.

97. In the spherical coordinate system, ρ can be negative.

98. If the binomial $x^2 + y^2$ is present in the integrand (or in the limits) of a triple integral, you should use cylindrical coordinates.

Chapter 14
Technology Exercises

99. Use a computer algebra system to find the center of mass of the solid of Exercise 80.

100. Write a program on your computer algebra system that performs a change from x- and y-coordinates to u- and v-coordinates and evaluates a given integral in the new coordinate system. Test your program by checking the answers you obtained for Exercises 89–90.

101. Use a computer algebra system to create the graph of the solid seen in Example 3 of Section 14.5.