DUE: Wednesday, Nov. 26 at 10:15

Use Maple to do all of the following. See examples in my lectures for Sections 12.6 and especially 14.1 on the course web site.

Use Text mode to enter your name(s) at the top of your project.

A multivariate function is given by

$$f = \frac{xy(x^2 - y^2)}{780} \,. \tag{1}$$

1. Use `plot3d` to plot the surface f on the region $-10 \le x \le 10$, $-10 \le y \le 10$. Use , unconstrained scaling, and boxed axes.

2. On the same region, use `contourplot` to plot the surface f along with contours (level curves) $z = -4, -3, -2, -1, 0, 1, 2, 3, 4$. Use a curve thickness of 3.

3. On the same region, plot the surface f along with the contours in the $xy-$plane corresponding to $z = -4, -3, -2, -1, 0, 1, 2, 3, 4$. Position the contour plot to be 10 units below the $xy-$plane. Use a curve thickness of 3.

- **Use the mouse to size and orient the plots so that they are reasonably sized and oriented when printed—not too small but large enough to show important features clearly.**

- **Use the asterisk $*$ for all multiplications! (Maple usually displays it as a dot.)**

- **Insert text comments to enumerate each part of this assignment.**