In article <a9116224.0311240712.618f4088@posting.google.com>,
 mruschin@hotmail.com (mark) wrote:

> I'd like to form an image which has an elliptical shape and where all
> the pixels within this ellipse have values corresponding to any given
> function that I would specify, the simplest example being a uniform
> image (i.e. a value of 1 for all the pixels in the ellipse). Is there
> any nice way to do this in IDL or MATLAB other than looping through
> all the pixels and determining whether any given one lies within the
> ellipse?
>
> Mark

I think this does the trick.

Ken Bowman

nx = 300
ny = 300

a = 0.75
b = 0.50

x = 2.0*((FINDGEN(nx)+0.5)/nx - 0.5)
y = 2.0*((FINDGEN(nx)+0.5)/nx - 0.5)

xx = REBIN(x, nx, ny, /SAMPLE)
yy = REBIN(REFORM(y, 1, ny), nx, ny, /SAMPLE)

ellipse = 255*(xx^2/a + yy^2/b LT 1.0)

WINDOW, XSIZE = 300, YSIZE = 300
TV, ellipse