

Quiz 3

Name: ME

1. (10 points) Figures A through F show that graphs of six functions $f(x, y)$. Figures a through f are plots of their level curves in some order. Complete the following table by matching each function in the table with its graph and plot of its level curves.

Function $f(x, y)$	Graph (upper case)	Level curves (lower case)
$f(x, y) = \frac{1}{x^2+y^2+1}$	D	d
$f(x, y) = \sin \sqrt{x^2 + y^2}$	B	e
$f(x, y) = (3y^2 - 2x^2)e^{-x^2-2y^2}$	A	b
$f(x, y) = y^3 - 3x^2y$	E	c
$f(x, y) = x^2y^2e^{-x^2-2y^2}$	F	a
$f(x, y) = ye^{-x^2-y^2}$	C	f

