

QUIZ 1

Name _____

1. Consider the function $f(x, y) = 3x^2 + \cos(y)$. Draw (sketch) a graph of the cross-section of f at $x = -3$.

2. Consider the function f given by $f(x, y) = -x^2 - y^2 + 1$. Draw (sketch) a graph of the contour line for f at $z = -3$. Describe this graph. (The sketch may be very rough but your description must be pretty accurate.)

3. For each of the following functions, match it to the correct graph on the next page.

(a) $f(x, y) = \cos(\sqrt{x^2 + y^2})$

(b) $f(x, y) = \cos^2(x) * \cos^2(y)$

(c) $f(x, y) = \frac{-1}{x^2 + y^2}$

(d) $z = \cos(xy)$

(e) $z = xye^{-(x^2+y^2)}$

