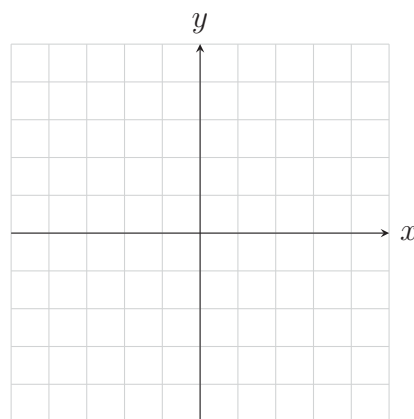


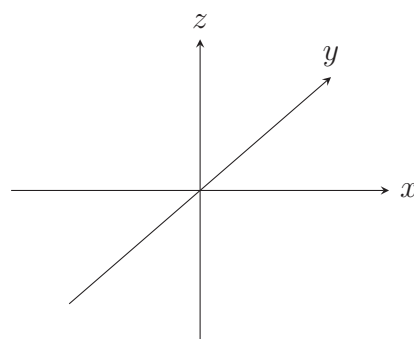
Name: _____

1. Let $f(x, y) = y^4 e^{x/y}$. Evaluate $f(0, 2)$, then find the domain and range of f .

2. Find and sketch the domain of $f(x, y) = \sqrt{xy}$.



3. Sketch a graph of $f(x, y) = \cos(x)$.



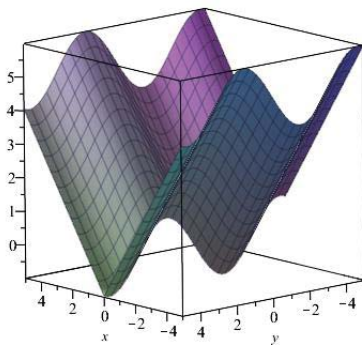
4. Match the function with its graph. Give reasons for your choices that completely eliminate any possibility that it could be any of the other choices.

a. $f(x, y) = |x| + \sin(y)$

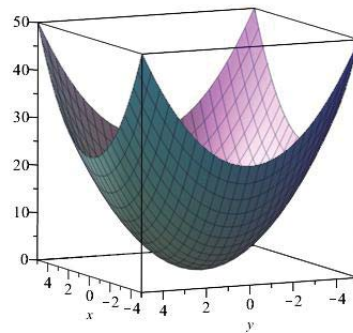
c. $f(x, y) = x^2 + y - 1$

b. $f(x, y) = x^2 + y^2$

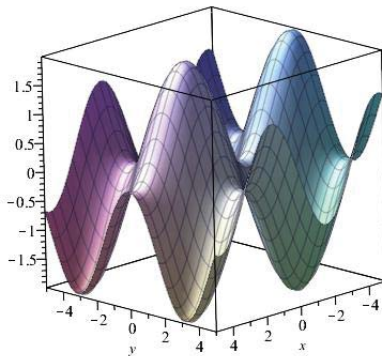
d. $f(x, y) = \sin(x) + \cos(y)$



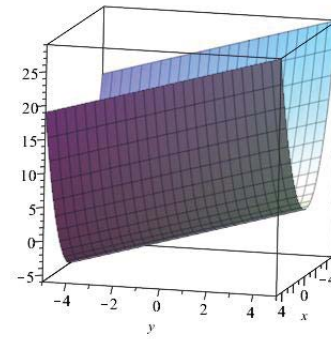
I)



III)

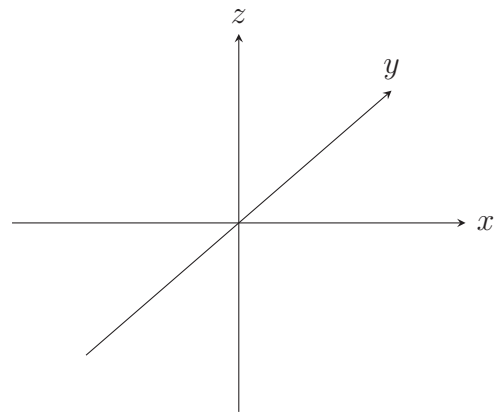
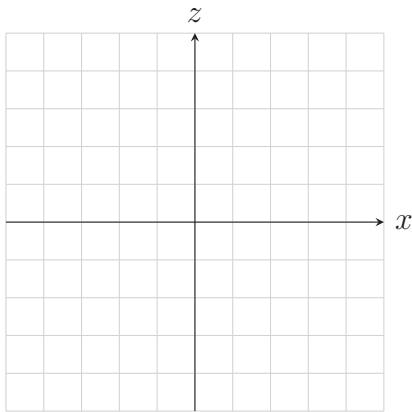
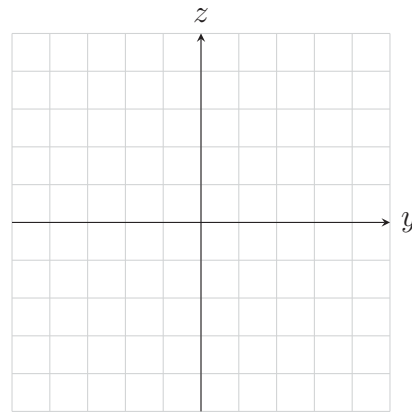
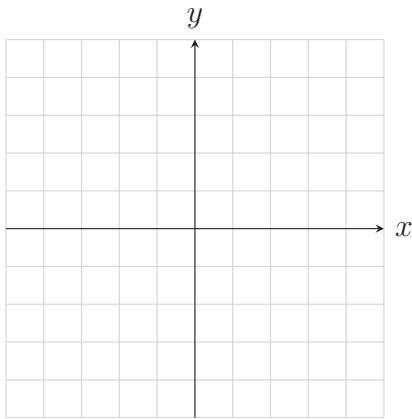


II)



IV)

5. Use traces to sketch the graph of $f(x, y) = \sqrt{16 - x^2 - 16y^2}$



6. Classify $4y^2 + z^2 - x - 16y - 4z + 20 = 0$ from one of the standard forms shown on the Lecture Problems.