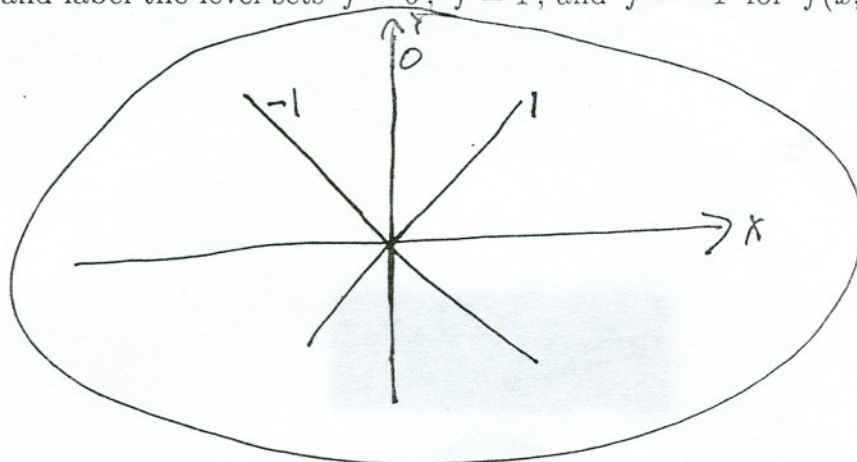


~~80~~

70

5. Graph and label the level sets $f = 0$, $f = 1$, and $f = -1$ for $f(x, y) = \frac{x}{y}$.

$f = 0 \Rightarrow x = 0$
 $f = 1 \Rightarrow y = x$
 $f = -1 \Rightarrow -y = x$



6. Sketch the curve parameterized by $\vec{r}(t) = \cos t \vec{i} + t \vec{j} + \sin t \vec{k}$ in 3-space.

If I look down the y -axis I see the circle $\begin{cases} x = \cos t \\ z = \sin t \end{cases}$; but y is growing as t goes, so the graph is a helix.

