## Worksheet \# 1

Friday, January 12, 2024

## Name

## Question (5 pts):

Using ladder operators $L_{ \pm}$and how they act on a state $\mid l, m>$, find $<\mathrm{L}_{\mathrm{x}}>$ and $\left.<\mathrm{L}_{\mathrm{y}}\right\rangle$. Use the semiclassical picture we discussed in class to argue how your result makes sense.

