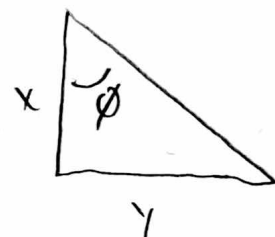


$$1.) \tan \phi = \frac{y}{x}$$

$$\Rightarrow (C.)$$



2.) No. THERE IS AN UNCERTAINTY

RELATION GIVEN BY $\Delta L_z \Delta \phi \geq \hbar$.

3.) THE DIRECTION OF MOMENTUM

IS QUANTIZED THE NUMBER OF

POSSIBLE DIRECTIONS IS GIVEN BY

ALL POSSIBLE m_l WHICH IS $2l+1$

DISTINCT #'S.