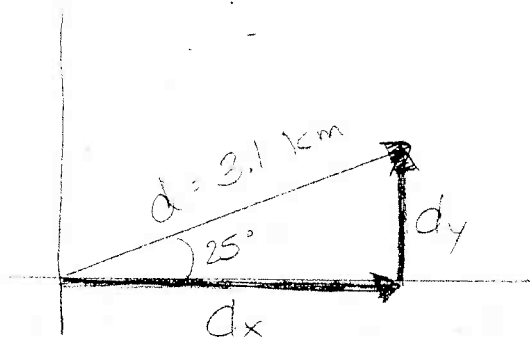




$$\begin{aligned}d_x &= d \cdot \cos \theta \\&= (3.10 \text{ km}) \cdot \cos 25^\circ\end{aligned}$$

$$d_x = 2.81 \text{ km east}$$

$$\begin{aligned}d_y &= d \cdot \sin \theta \\&= (3.10 \text{ km}) \cdot \sin 25^\circ\end{aligned}$$

$$d_y = 1.31 \text{ km north}$$