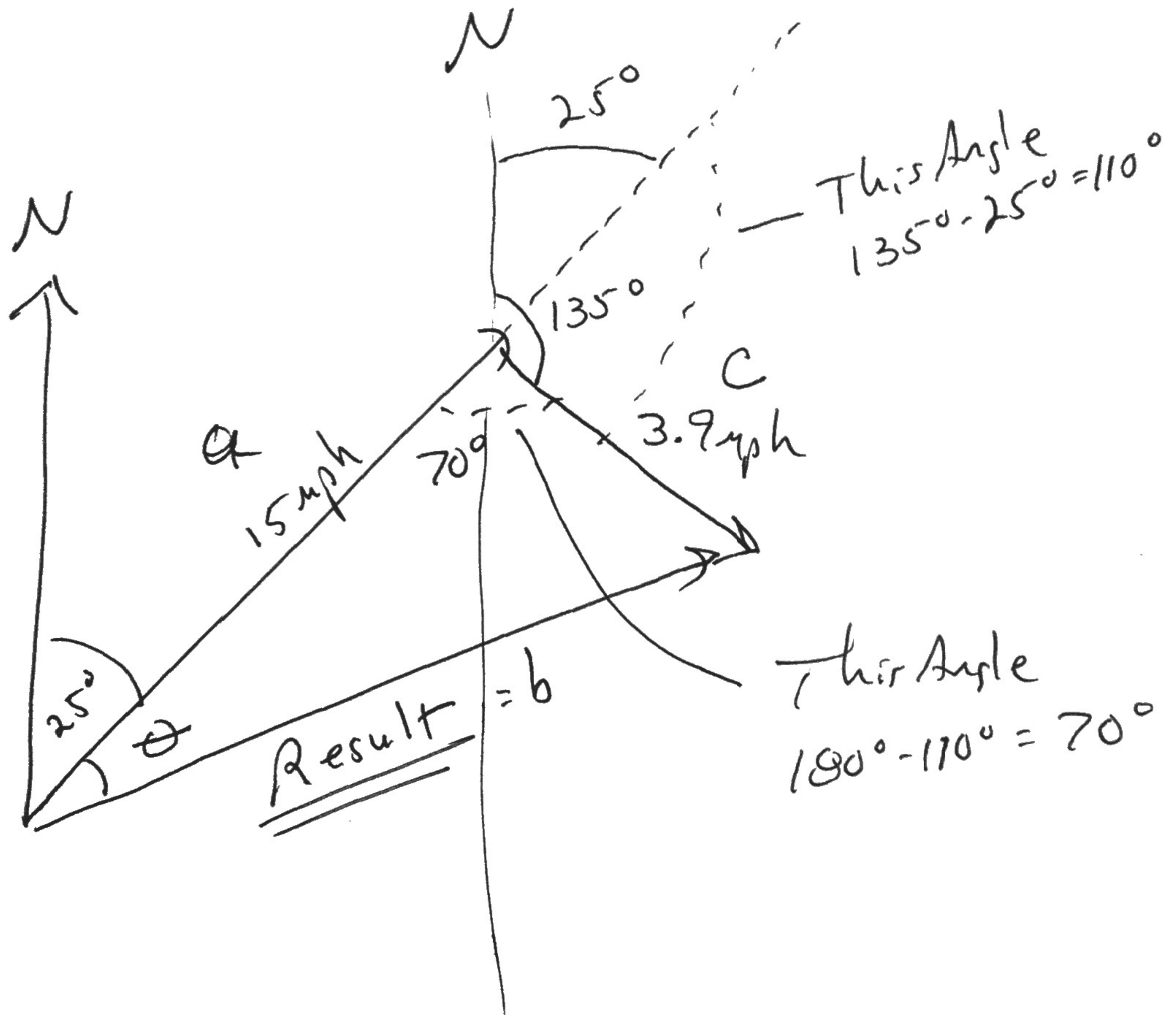


Q.3 #26



$$b^2 = a^2 + c^2 - 2ac \cos \beta$$

$$b^2 = 15^2 + 3.9^2 - 2(15)(3.9)\cos(70^\circ)$$

$$b = 14.14 \text{ mph}$$

$$\frac{\sin \beta}{b} = \frac{\sin \alpha}{c} \Rightarrow$$

$$\frac{\sin(70^\circ)}{14.14} = \frac{\sin(\theta)}{3.9}$$

$$\sin \theta = 0.259$$

$$\theta = 15.02^\circ$$

Final Direction
 $= 25^\circ + 15.02^\circ$
 $= 40.02^\circ$