



Graphically, $V = 16.4$ units, $\theta_x = 83^\circ$

Algebraically, $V^2 = 10^2 + 12^2 - 2(10)(12)\cos 96.9^\circ$
 $V = 16.51$ units

$$\frac{\sin \beta}{12} = \frac{\sin 96.9^\circ}{16.51} \quad , \quad \beta = 46.2^\circ$$

$$\theta_x = \beta + 36.9^\circ = 46.2^\circ + 36.9^\circ = \underline{83.0^\circ}$$