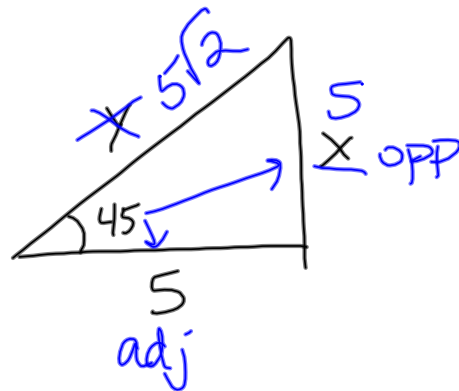


Q:

①



SOH CAH TOA

$$\tan \theta = \frac{\text{opp}}{\text{adj}}$$

$$\tan 45^\circ = \frac{x}{5}$$

$$5 \cdot 1 = \frac{x}{5} \cdot 5$$

$$5 = x$$

$$a^2 + b^2 = c^2$$

$$5^2 + 5^2 = y^2$$

$$25 + 25 = y^2$$

$$\sqrt{50} = y$$

$$5\sqrt{2} = y$$

$$5\sqrt{2} = y$$

$$\sin \theta = \frac{6}{11} = \frac{\text{OPP}}{\text{hyp}}$$

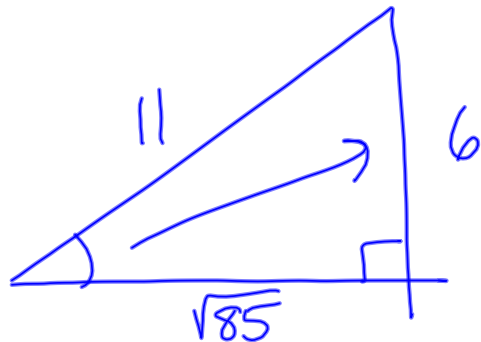
$$\csc \theta = \frac{11}{6}$$

$$\cos \theta = \frac{A}{H} = \frac{\sqrt{85}}{11}$$

$$\sec \theta = \frac{11}{\sqrt{85}} \cdot \frac{\sqrt{85}}{\sqrt{85}} = \frac{11\sqrt{85}}{85}$$

$$\tan \theta = \frac{O}{A} = \frac{6}{\sqrt{85}} \cdot \frac{\sqrt{85}}{\sqrt{85}}$$

$$\cot \theta = \frac{6\sqrt{85}}{85}$$



$$a^2 + b^2 = c^2$$

$$6^2 + b^2 = 11^2$$

$$36 + b^2 = 121$$

$$\begin{array}{r} 36 + b^2 = 121 \\ -36 \quad -36 \\ \hline \end{array}$$

$$b^2 = 85$$

$$b = \sqrt{85}$$