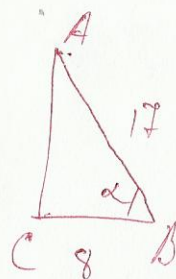


$$\cos \alpha = \frac{8}{17} \quad -\frac{\pi}{2} < \alpha < 0$$



$$\sin \alpha = \frac{AC}{AB}$$

$$AC = \sqrt{289 - 64} = \sqrt{225} = \sqrt{15^2} = 15$$

$$\sin \alpha = \frac{15}{17} = \frac{240}{289}$$

$$\sin 2\alpha = 2 \sin \alpha \cos \alpha = -\frac{2 \cdot 8 \cdot 15}{289}$$