

Find your group members

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UConn Honors Calc 2

Fall 2018

sub with sin

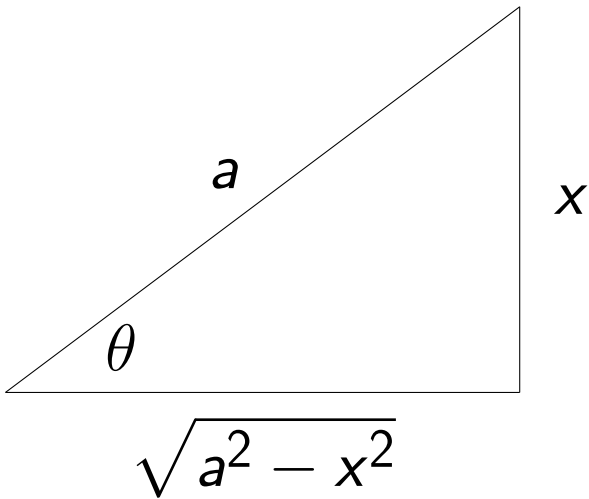
sub with sec

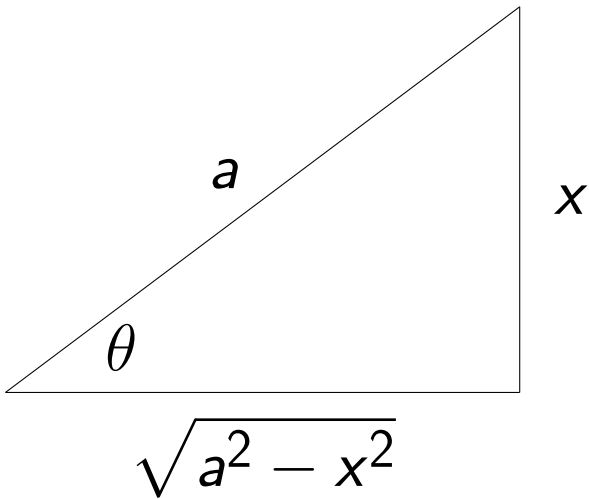
sub with tan

sub with cos

sub with csc

sub with cot





$$\sin \theta = \frac{x}{a} \text{ where}$$

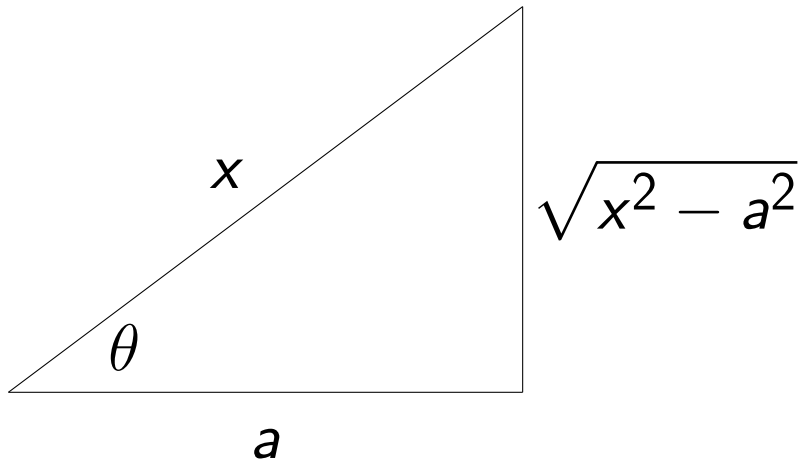
$$-\frac{\pi}{2} \leq \theta \leq \frac{\pi}{2}$$

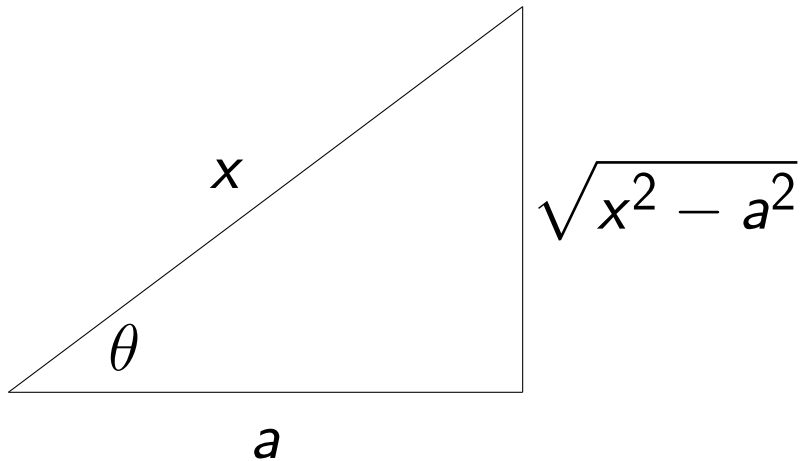
$$\sin \theta = \frac{x}{a} \text{ where}$$

$$-\frac{\pi}{2} \leq \theta \leq \frac{\pi}{2}$$

$$dx = a \cos \theta d\theta$$

$$dx = a \cos \theta d\theta$$





$$\sec \theta = \frac{x}{a} \text{ where}$$

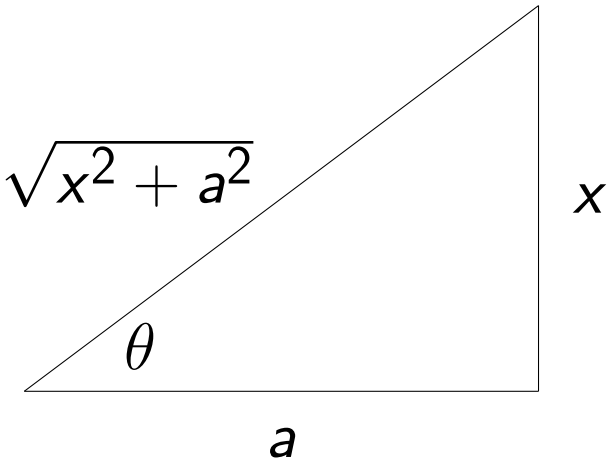
θ is in $[0, \frac{\pi}{2})$ or $[\pi, \frac{3\pi}{2})$

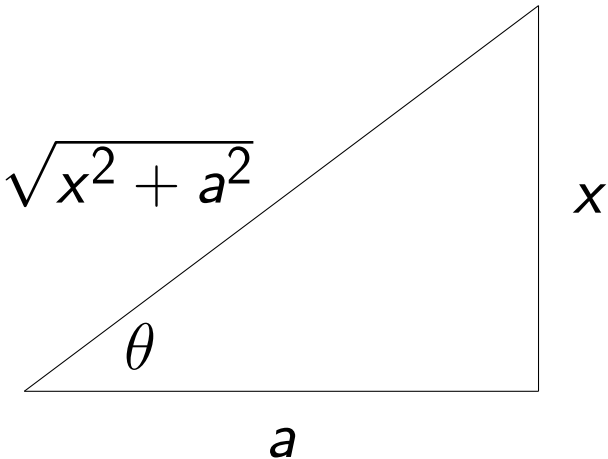
$$\sec \theta = \frac{x}{a} \text{ where}$$

θ is in $[0, \frac{\pi}{2})$ or $[\pi, \frac{3\pi}{2})$

$$dx = a \sec \theta \tan \theta d\theta$$

$$dx = a \sec \theta \tan \theta d\theta$$





$$\tan \theta = \frac{x}{a} \text{ where}$$

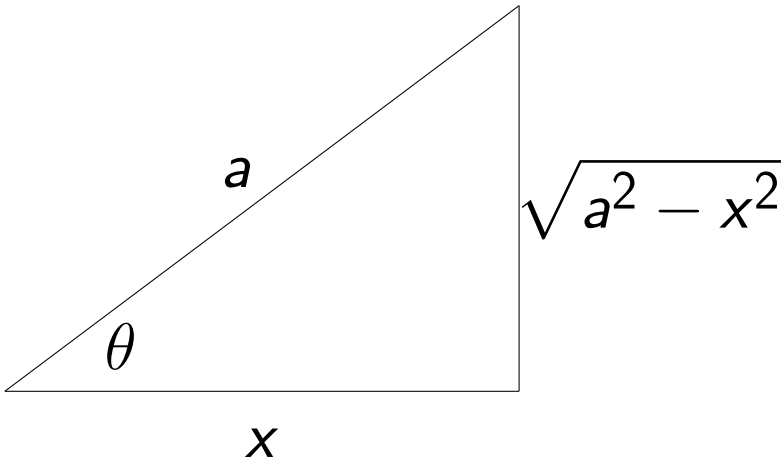
$$-\frac{\pi}{2} < \theta < \frac{\pi}{2}.$$

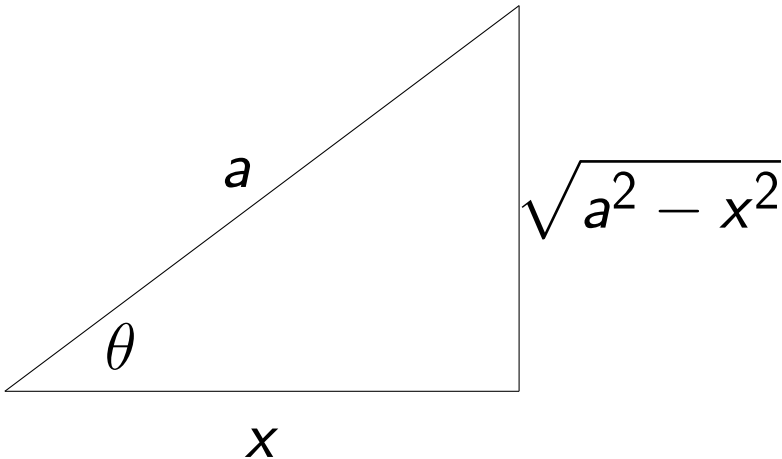
$$\tan \theta = \frac{x}{a} \text{ where}$$

$$-\frac{\pi}{2} < \theta < \frac{\pi}{2}.$$

$$dx = a \sec^2 \theta d\theta$$

$$dx = a \sec^2 \theta d\theta$$





$$\cos \theta = \frac{x}{a} \text{ where}$$

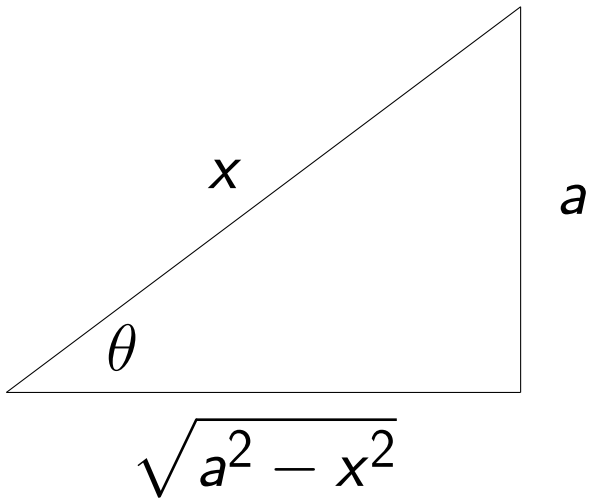
$$0 \leq \theta \leq \pi.$$

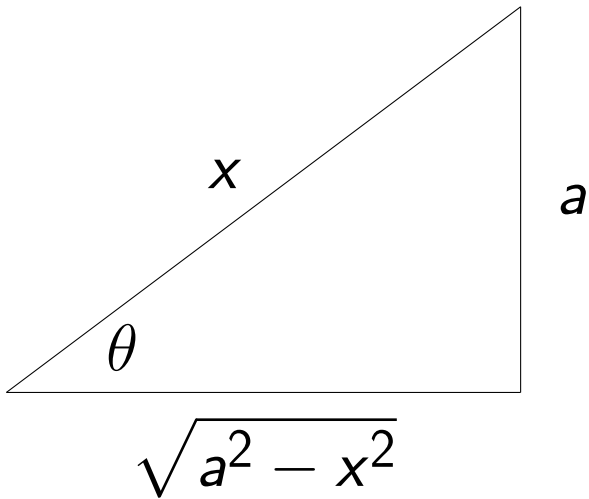
$$\cos \theta = \frac{x}{a} \text{ where}$$

$$0 \leq \theta \leq \pi.$$

$$dx = -a \sin \theta d\theta$$

$$dx = -a \sin \theta d\theta$$





$$\csc \theta = \frac{x}{a} \text{ where}$$

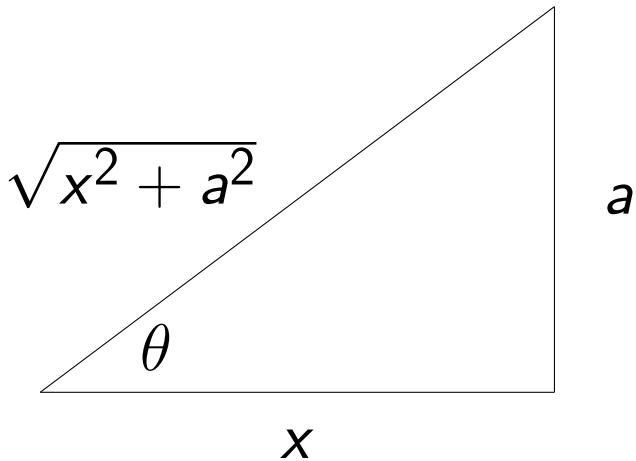
θ in $(0, \frac{\pi}{2}]$ or $(\pi, \frac{3\pi}{2}]$.

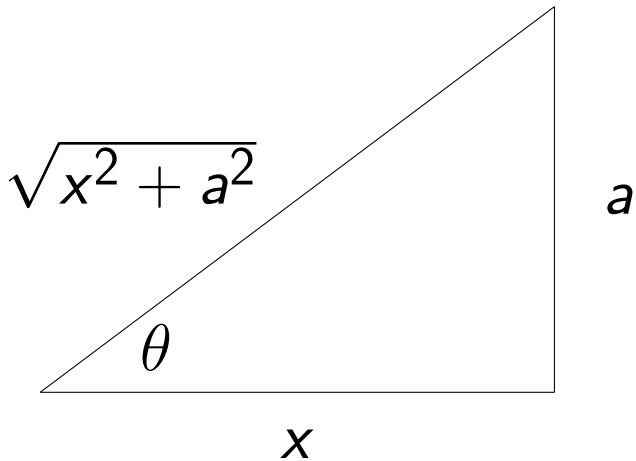
$$\csc \theta = \frac{x}{a} \text{ where}$$

θ in $(0, \frac{\pi}{2}]$ or $(\pi, \frac{3\pi}{2}]$.

$$dx = -a \csc \theta \cot \theta d\theta$$

$$dx = -a \csc \theta \cot \theta d\theta$$





$$\cot \theta = \frac{x}{a} \text{ where}$$

$$0 < \theta < \pi.$$

$$\cot \theta = \frac{x}{a} \text{ where}$$

$$0 < \theta < \pi.$$

$$dx = -a \csc^2 \theta d\theta$$

$$dx = -a \csc^2 \theta d\theta$$