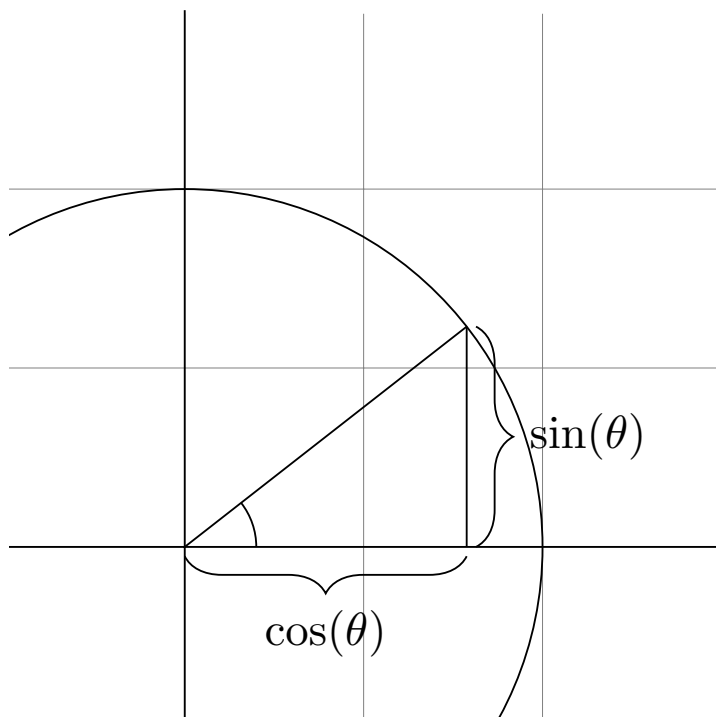


Trig Crib Sheet

Definitions



$$\tan \theta = \frac{\sin \theta}{\cos \theta}$$

$$\sec \theta = \frac{1}{\cos \theta}$$

$$\csc \theta = \frac{1}{\sin \theta}$$

$$\cot \theta = \frac{1}{\tan \theta} = \frac{\cos \theta}{\sin \theta}$$

Identities

$$\sin^2 \theta + \cos^2 \theta = 1$$

$$1 + \tan^2 \theta = \sec^2 \theta$$

$$1 + \cot^2 \theta = \csc^2 \theta$$

$$\frac{d}{dx} \sin x = \cos x$$

$$\int \sin x \, dx = -\cos x + C$$

$$\frac{d}{dx} \cos x = -\sin x$$

$$\int \cos x \, dx = \sin x + C$$

$$\frac{d}{dx} \tan x = \sec^2 x$$

$$\int \tan x \, dx = \ln(\sec x) + C$$

$$\frac{d}{dx} \sec x = \sec x \tan x$$

$$\int \sec x \, dx = \ln(\tan x + \sec x) + C$$

$$\frac{d}{dx} \csc x = -\csc x \cot x$$

$$\int \csc x \, dx = -\ln(\cot x + \csc x) + C$$

$$\frac{d}{dx} \cot x = -\csc^2 x$$

$$\int \cot x \, dx = \ln(\sin x) + C$$

Graphs

