

## Formulas

- $\sin(\theta) = \frac{\text{opp}}{\text{hyp}}$
- $\cos(\theta) = \frac{\text{adj}}{\text{hyp}}$
- $\tan(\theta) = \frac{\text{opp}}{\text{adj}}$
- $\sec(\theta) = \frac{\text{hyp}}{\text{adj}}$
- $\tan(\theta) = \frac{\sin(\theta)}{\cos(\theta)}$
- $\sec(\theta) = \frac{1}{\cos(\theta)}$
- $\int \tan(\theta) \, d\theta = \ln|\sec(\theta)| + C$
- $\int \sec(\theta) \, d\theta = \ln|\sec(\theta) + \tan(\theta)| + C$
- $\int \sec^2(\theta) \, d\theta = \tan(\theta) + C$
- $\int \sec(\theta) \tan(\theta) \, d\theta = \sec(\theta) + C$
- $\sin(2\theta) = 2 \sin(\theta) \cos(\theta)$
- $\cos(2\theta) = \cos^2(\theta) - \sin^2(\theta)$
- $\sin^2(\theta) = \frac{1 - \cos(2\theta)}{2}$
- $\cos^2(\theta) = \frac{1 + \cos(2\theta)}{2}$
- $\sin^2(\theta) = 1 - \cos^2(\theta)$
- $\tan^2(\theta) + 1 = \sec^2(\theta)$
- $\sec^2(\theta) - 1 = \tan^2(\theta)$