

$$\sin(A + B) = \sin A \cos B + \cos A \sin B$$

$$\cos(A + B) = \cos A \cos B - \sin A \sin B$$

$$\sin^2(A) = \frac{1}{2} (1 - \cos(2A))$$

$$\cos^2(A) = \frac{1}{2} (1 + \cos(2A))$$

$$\sin A \cos B = \frac{1}{2} (\sin(A - B) + \sin(A + B))$$

$$\sin A \sin B = \frac{1}{2} (\cos(A - B) - \cos(A + B))$$

$$\cos A \cos B = \frac{1}{2} (\cos(A - B) + \cos(A + B))$$

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

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

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