

$$1. \sin(x) * \operatorname{cosec}(x) = 1$$

$$2. \cos(x) * \sec(x) = 1$$

$$3. \tan(x) * \cot(x) = 1$$

$$4. \tan(x) = \frac{\sin(x)}{\cos(x)}$$

$$5. \cot(x) = \cos(x) / \sin(x)$$

$$6. \sin^2(x) + \cos^2(x) = 1$$

$$\sin(x) = \sqrt{1 - \cos^2(x)}$$

$$\cos(x) = \sqrt{1 - \sin^2(x)}$$

$$7. 1 + \tan^2(x) = \sec^2(x)$$

$$\tan(x) = \sqrt{\sec^2(x) - 1}$$

$$\sec(x) = \sqrt{1 + \tan^2(x)}$$

$$\sec^2(x) - \tan^2(x) = 1$$

$$8. 1 + \cot^2(x) = \operatorname{cosec}^2(x)$$

$$\cot(x) = \sqrt{\operatorname{cosec}^2(x) - 1}$$

$$\operatorname{cosec}(x) = \sqrt{1 + \cot^2(x)}$$

$$\operatorname{cosec}^2(x) - \cot^2(x) = 1$$

