

Trigonometric Formulas/Identities

$$\frac{\sin A}{a} = \frac{\sin B}{b} = \frac{\sin C}{c}$$

$$\bullet c^2 = a^2 + b^2 - 2ab \cos C \quad \bullet a^2 = b^2 + c^2 - 2bc \cos A \quad \bullet b^2 = a^2 + c^2 - 2ac \cos B$$

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

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

$$\bullet \cot \theta = \frac{1}{\tan \theta}$$

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

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

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

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

$$\bullet \cot \theta = \frac{\cos \theta}{\sin \theta}$$