

## *Trigonometric Ratios of Sum and Difference of*

### *Two Angles*

- $\sin(A+B) = \sin A \cdot \cos B + \cos A \cdot \sin B$
- $\sin(A-B) = \sin A \cdot \cos B - \cos A \cdot \sin B$
- $\cos(A+B) = \cos A \cdot \cos B - \sin A \cdot \sin B$
- $\cos(A-B) = \cos A \cdot \cos B + \sin A \cdot \sin B$
- $\tan(A+B) = \frac{\tan A + \tan B}{1 - \tan A \cdot \tan B}$
- $\tan(A-B) = \frac{\tan A - \tan B}{1 + \tan A \cdot \tan B}$
- $\cot(A+B) = \frac{\cot A \cdot \cot B - 1}{\cot A + \cot B}$
- $\cot(A-B) = \frac{\cot A \cdot \cot B + 1}{\cot B - \cot A}$