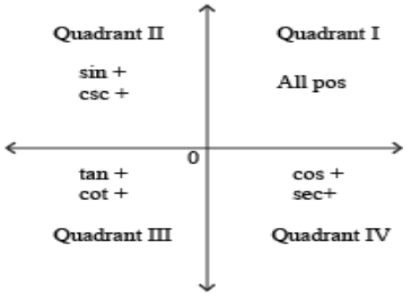

$x^2 + y^2 = r^2$					
$\sin\theta = \frac{y}{r}$	$\cos\theta = \frac{x}{r}$	$\tan\theta = \frac{y}{x}$	$\csc\theta = \frac{r}{y}$	$\sec\theta = \frac{r}{x}$	$\cot\theta = \frac{x}{y}$

Main Ideas/Questions	Notes	
Sum and Difference of Angles Identities	**Sum of Angles**	**Difference of Angles**
	$\sin(A+B) = \sin A \cdot \cos B + \cos A \cdot \sin B$	$\sin(A-B) = \sin A \cdot \cos B - \cos A \cdot \sin B$
	$\cos(A+B) = \cos A \cdot \cos B - \sin A \cdot \sin B$	$\cos(A-B) = \cos A \cdot \cos B + \sin A \cdot \sin B$
	$\tan(A+B) = \frac{\tan A + \tan B}{1 - \tan A \cdot \tan B}$	$\tan(A-B) = \frac{\tan A - \tan B}{1 + \tan A \cdot \tan B}$

Examples:

Given $\sin A = \frac{5}{13}; 0 < A < \frac{\pi}{2}$, and $\cos B = \frac{4}{5}; 0 < B < \frac{\pi}{2}$, find

a) sin (A + B) =

b) cos (A + B) =

Given $\sin A = \frac{12}{13}; 0 < A < \frac{\pi}{2}$, and $\sin B = \frac{4}{5}; \frac{\pi}{2} < B < \pi$, find

a) sin (A - B) =

b) cos (A - B) =

Given $\tan A = \frac{9}{40}; \pi < A < \frac{3\pi}{2}$, and $\cos B = \frac{1}{2}; \frac{3\pi}{2} < B < 2\pi$, find

a) sin (A + B) =

b) cos (A - B) =