

<p>1. If $\sin \alpha = \frac{4}{5}$, $\frac{\pi}{2} < \alpha < \pi$ and $\cos \beta = \frac{24}{25}$, $\pi < \beta < 2\pi$, evaluate the following: EXACT VALUES – NO DECIMALS</p>	
a) $\sin(\alpha + \beta)$	b) $\cos(\alpha - \beta)$
c) $\sin 2\alpha$	d) $\cos \frac{\beta}{2}$
<p>2. Find the exact value – NO DECIMALS:</p>	
a) $\sin \frac{9\pi}{8}$	b) $\cos \frac{13\pi}{12}$
c) $\sin \frac{\pi}{12}$	
<p>3. If θ terminates in Quadrant II, and $\sin \theta = \frac{12}{13}$, find the following: EXACT VALUES – NO DECIMALS</p>	
a) $\cos \theta$	b) $\tan \theta$
<p>4. Solve each equation over $0 \leq \theta < 2\pi$, EXACT VALUES – NO DECIMALS</p>	
a) $2 \sin x \cos x = \cos x$	b) $3 \cos x + 3 = 2 \sin^2 x$

5. Verify each identity

a) $\tan \theta \sin \theta = \sec \theta - \cos \theta$

b) $\frac{\sec x - \cos x}{\tan x} = \sin x$

6. If $\cos \theta = -\left(\frac{5}{8}\right)$ and θ is in Quadrant II, find the following:

a) $\sin 2\theta$

b) $\cos 2\theta$