Pre-Calculus 12 Name : _____

Extra Practice (6.1 – 6.2)

1. Find an exact value for each

a) $\cos\frac{7\pi}{12}$

b) $\sin\frac{5\pi}{12}$

2. Expand and simplify

a) $\sin\left(\frac{\pi}{2}+\theta\right) + \sin\left(\frac{\pi}{2}-\theta\right)$

b) $\cos(\alpha - \frac{\pi}{3})$

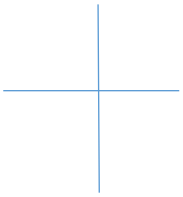
3. Simplify

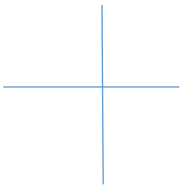
a) $1-2\sin^2\left(\frac{3\pi}{8}\right)$

b) $\dfrac{2\tan\frac{\pi}{8}}{1-\tan^2\frac{\pi}{8}}$

Pre-Calculus 12
Extra Practice (6.1 – 6.2)

4. If $\sin \alpha = 3/5$ , and $\cos \beta = -5/13$ , and $\alpha$ and $\beta$ are in quadrant II , find:





a) $\sin (\alpha - \beta)$

b) $\sin 2\beta$

c) $\cos (\alpha + \beta)$

d) $\cos 2\alpha$

5. Verify the identity for $\theta = \frac{\pi}{3}$

$$\cos \theta \cot \theta + \sin \theta = \csc \theta$$