

1) Find the exact value of a) $\tan^{-1}(\sqrt{3})$ b) $\csc^{-1}(-2)$	2) Use Sum/Diff Formulas to find: $\cos\left(\frac{17\pi}{12}\right)$	3) Use Half Angle formulas to find $\cos\left(\frac{17\pi}{12}\right)$ Answers to 2) & 3) look different, use a calculator, show they're equal.
4) Establish the identity: $\tan^2 \theta \cos^2 \theta + \cot^2 \theta \sin^2 \theta = 1$	5) Find exact value of: $\csc\left(\sin^{-1}\left(\frac{-4}{5}\right) - \tan^{-1}\left(\frac{5}{12}\right)\right)$	6) Find the exact value of $\sin 2\theta$, $0 \leq \theta < 2\pi$ if $\csc \theta = -\sqrt{5}$ & $\cos < 0$
7) Solve each equation $0 \leq \theta < 2\pi$ a) $\sin(3\theta) = 1$ b) $1 + \sin \theta = 2 \cos^2 \theta$	8) Establish the Identity: $\frac{\cos(\alpha - \beta)}{\cos \alpha \cos \beta} = 1 + \tan \alpha \tan \beta$	

Answers: 1a) $\frac{\pi}{3}$; 1b) $-\frac{\pi}{6}$; 2) $\frac{\sqrt{2}-\sqrt{6}}{4}$; 3) $-\frac{\sqrt{2}-\sqrt{3}}{2}$ 4) quotID, mult, pythID. 5) $-\frac{65}{63}$
 6) $+\frac{4}{5}$; 7a) $\theta = \frac{\pi}{6}$ or $\frac{5\pi}{6}$ or $\frac{3\pi}{2}$; 7b) pythID, set = 0, $\theta = \frac{\pi}{6}$ or $\frac{5\pi}{6}$ or $\frac{3\pi}{2}$; 8) sum/diff; split
 fractions, divide/cancel, quotID.