Algebra 2 Wods 1-23-13 CLASS NOTES

① $\sin\theta \sec\theta = \tan\theta$

$\sin\theta \cdot \frac{1}{\cos\theta}$

$\frac{\sin\theta}{\cos\theta}$

$\tan\theta$ $\tan\theta$ ✓

⑤ $(1+\sec^2\theta)(1-\sin^2\theta)$

terms of $\cos\theta$

$(1+\tan^2\theta+1)(\cos^2\theta)$ $\quad \tan^2\theta+1=\sec^2\theta$

$\left(\frac{\sin^2\theta}{\cos^2\theta}+2\right)(\cos^2\theta)$

$\sin^2\theta + 2\cos^2\theta$

$\sin^2\theta+\cos^2\theta+\cos^2\theta$ $\quad \sin^2\theta+\cos^2\theta=1$

$1+\cos^2\theta$ $\quad -\sin^2\theta-\cos^2\theta=-1$

$1-\cos^2\theta=\sin^2\theta$

$-1+\cos^2\theta=-\sin^2\theta$

(6) $\sin^2\theta + \cos^2\theta + \tan^2\theta$

$1 + \tan^2\theta$

$\sec^2\theta$

$\frac{1}{\cos^2\theta}$

$\tan^2\theta + 1 = \sec^2\theta$

$\sin^2\theta + \cos^2\theta = 1$

$\frac{\sin^2\theta}{\sin^2\theta} + \frac{\cos^2\theta}{\sin^2\theta} = \frac{1}{\sin^2\theta}$

$1 + \cot^2\theta = \csc^2\theta$

$\frac{\sin^2\theta}{\cos^2\theta} + \frac{\cos^2\theta}{\cos^2\theta} = \frac{1}{\cos^2\theta}$

$\tan^2 + 1 = \sec^2\theta$

(9) $\dfrac{\sin\theta - \cos\theta}{\sin\theta} = 1 - \cot\theta$

$\dfrac{\sin\theta}{\sin\theta} - \dfrac{\cos\theta}{\sin\theta}$

$1 - \cot\theta$ | $1 - \cot\theta$ ✓

(10) $\tan\theta \sin\theta = \sec\theta - \cos\theta$

$\frac{\sin\theta}{\cos\theta} \cdot \sin\theta$ | $\frac{1}{\cos\theta} - \cos\theta \cdot \frac{\cos\theta}{\cos\theta}$

$\frac{\sin^2\theta}{\cos\theta}$ | $\frac{1}{\cos\theta} - \frac{\cos^2\theta}{\cos\theta}$

$\frac{\sin\theta}{\cos\theta} \cdot \frac{1}{\csc\theta}$ | $\frac{1-\cos^2\theta}{\cos\theta}$

$\frac{\sin^2\theta}{\cos\theta} = \frac{\sin^2\theta}{\cos\theta}$ ✓