Math 122 – Trigonometry Name_____
Section [3.4] Video Worksheet – 9th Edition

Trigonometric Identities

Rewrite in terms of sine and cosine functions:

- $\tan\theta$
- $\csc\theta$
- $\cot\theta$
- $\sec\theta$

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

Even and odd identities

$\sin(-x)=$ $\cos(-x)=$

$\csc(-x)=$ $\sec(-x)=$

$\tan(-x)=$

$\cot(-x)=$

Establish each identity

$$\csc x-\cot x=\frac{\sin x}{1+\cos x}$$

$$(1-\cos^2\theta)(1+\cot^2\theta)=1$$

$$\frac{\sec\theta}{\csc\theta}+\frac{\sin\theta}{\cos\theta}=2\tan\theta$$

$$\ln.\text{abs}[1+\cos\theta]+\text{lnabs}.[1-\cos\theta]=2\,\text{lnabs}.[\sin\theta]$$