Pre-Calculus AB

Name_____

Worksheet 28 - Lesson 76

Date_____ Period_____

1) Determine whether the following functions are even, odd or neither by checking the definitions.

   (a) $f(x) = x^2 - 1$

   (b) $g(x) = x^3 + x + 1$

   (c) $h(x) = e^{x^2 + 3}$

   (d) $j(x) = \sqrt[3]{x} - x^7$

2) Determine whether the following functions are even, odd or neither by checking the definitions.

   (a) $f(x) = 5\sin x$

   (b) $g(x) = 2 - \cos x$

   (c) $h(x) = \tan x + \cot x$

   (d) $j(x) = 7 + \csc^3 x$

3) Show: $\cos x \cdot \tan x = \dfrac{1}{\csc x}$

4) Show: $\dfrac{\cot x}{\csc x} = \cos x$

5) Show: $-\sin(-\theta)\cos\left(\dfrac{\pi}{2} - \theta\right) = \sin^2\theta$

6) Show: $\sin x \cdot \sec x = \tan x$

7) Show: $\cot x \cdot \sec x = \csc x$

8) Show: $\sin(-\theta)\tan\left(\dfrac{\pi}{2} - \theta\right) = -\cos(\theta)$