Name: _____   Date: _____

Learning Goal 3.2	Applying derivatives to trigonometric and exponential functions.

More Questions

1. Use the quotient rule to find the derivatives.
   a. $y = \sec x$ b. $y = \csc x$ c. $y = \cot x$

NOTE Now that we know what these are we can use them as a rule. We don`t need to derive them each time.
On the other hand, be confident that you can if your memory fails you!

2. Find the following derivatives.

   a. $g(x) = 3\sec x - 10\cot x$ b. $y = 5\sin x \cos x + 4\csc x$ c. $c(w) = \dfrac{3}{w^4} - w^2 \tan w$

   d. $h(x) = (x + \sin(x^2))^{10}$ e. $k(x) = \sin(\cos^2 x)$ f. $h(s) = \sin\sqrt{s^2 - 1}$

3. Find an equation of the tangent line to the graph of the function $f(x) = \tan 2x$ at the point $\left(\pi/8, 1\right)$.
4. Find the points on the curve $y = x + 2\cos x$ that have a horizontal tangent line.