

Differentiation Rules Benchmark # 6

1.	$\frac{d}{dx}\left[\sin\left(\frac{1}{x}\right)\right]$	
2.	c is a constant $\frac{d}{dx}[c \cdot p(x)]$	
3.	$\frac{d}{dx}\left[\frac{t(x)}{w(x)}\right]$	
4.	$\frac{d}{dx}[\ln(\sec(x))]$	
5.	$\frac{d}{dx}[s(x) \cdot w(x)]$	
6.	$\frac{d}{dx}[e]$	
7.	$\frac{d}{dx}[(\cos(x))^3]$	
8.	$\frac{d}{dx}[\cos(2x^3 - 7)]$	
9.	$\frac{d}{dx}[e^{\arctan(x)}]$	
10.	$\frac{d}{dx}[\sec(3^x)]$	
11.	$f(x) = x^5 + 27x + 5$ $(f^{-1})'(10)$	SETUP ONLY!! You don't need to solve for the value.
12.	$\frac{d}{dx}[\cot(-x)]$	

13.	$\frac{d}{dx}[\operatorname{arccot}(\cos(x))]$	
14.	$\frac{d}{dx}[x]$	
15.	$\frac{d}{dx}[4x+5]$	
16.	$\frac{d}{dx}[5^{\sec(x)}]$	
17.	$\frac{d}{dx}[\operatorname{arccsc}(x^7)]$	
18.	$\frac{d}{dx}[\arccos(\log_2(x))]$	
19.	$\frac{d}{dx}[\log_6(x^3+4x)]$	
20.	$\frac{d}{dx}[\arcsin(e^x)]$	
21.	$\frac{d}{dx}[g(t(x))]$	
22.	$\frac{d}{dx}[\tan(\sec(x))]$	
23.	$\frac{d}{dx}[\operatorname{arcsec}(-x^2)]$	
24.	$\frac{d}{dx}[h(x) \pm q(x)]$	
25.	$\frac{d}{dx}[\arctan(5x)]$	
26.	$\frac{d}{dx}[\csc(x^2)]$	

