

## Differentiation Rules Benchmark # 3

1.	$\frac{d}{dx}[\sin(e^x)]$	
2.	$\frac{d}{dx}\left[\frac{b(x)}{s(x)}\right]$	
3.	$\frac{d}{dx}[\ln(\sin(x))]$	
4.	$\frac{d}{dx}[\operatorname{arccot}(\sin(x))]$	
5.	$f(x) = x^3 + 21x + 1$ $(f^{-1})'(8)$	SETUP ONLY!! You don't need to solve for the value.
6.	$\frac{d}{dx}[\pi]$	
7.	$\frac{d}{dx}[z(x) \cdot v(x)]$	
8.	$\frac{d}{dx}[\cos(-x^2 - 7x)]$	
9.	$\frac{d}{dx}[e^{\sec(x)}]$	
10.	$c$ is a constant $\frac{d}{dx}[c \cdot w(x)]$	
11.	$\frac{d}{dx}[\sec(7^x)]$	
12.	$\frac{d}{dx}[(\tan(x))^3]$	

13.	$\frac{d}{dx}[\cot(-x^2)]$	
14.	$\frac{d}{dx}[\operatorname{arccsc}(x^{-1})]$	
15.	$\frac{d}{dx}[x]$	
16.	$\frac{d}{dx}[ -x+2 ]$	
17.	$\frac{d}{dx}[5^{\csc(x)}]$	
18.	$\frac{d}{dx}[\arctan(-2x)]$	
19.	$\frac{d}{dx}[\log_8(x^2-3x+1)]$	
20.	$\frac{d}{dx}[q(x) \pm m(x)]$	
21.	$\frac{d}{dx}[\arccos(\ln(x))]$	
22.	$\frac{d}{dx}[\arcsin(5^x)]$	
23.	$\frac{d}{dx}[\tan(\cos(x))]$	
24.	$\frac{d}{dx}[\operatorname{arcsec}(-x)]$	
25.	$\frac{d}{dx}[\csc(x^{-8})]$	
26.	$\frac{d}{dx}[w(p(x))]$	

