

Derivatives Chain up to Exp Practice

Find each derivative using any appropriate rules.

1a) $y = \csc \csc (x^5)$

b) $y = x$

c) $y = 5^{\csc \csc x}$

2a) $f(x) = 7(\sqrt{6x} + 2x)$

b) $f(x) = 7^{\sqrt{6x+2x}}$

c) $f(x) = (\sqrt{6x} + 2x)^7$

3a) $g(\theta) = (e^{3\theta})$

b) $g(\theta) = (\theta)e^{3\theta}$

c) $g(\theta) = e^{\cot \cot 3\theta}$

4a) $s(t) = \sec \sec (9^t)$

b) $s(t) = 9^{\sec \sec t}$

c) $s(t) = t$

5a) $f(x) = 8xe^{\sqrt{x}}$

b) $f(x) = 8^{xe^{\sqrt{x}}}$

c) $f(x) = \frac{8^x}{e^{\sqrt{x}}}$