

## MATH 2B/5B Prep: Chain Rule

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### Facts to Know:

Derivative formula for composition of functions.

Chain Rule 1:  $\frac{d}{dx}f(g(x)) =$

Chain Rule 2:  $y = f(u)$  and  $u = g(x)$ ,  $\frac{dy}{dx} =$

### Examples:

1. Find the derivative of  $y = e^{6x}$ .

2. Find the derivative of  $y = \sin^3(2x)$ .