

## RECITATION: REVIEW OF DERIVATIVE AND INTEGRATION RULES

1. Fill out the table below.

$\frac{d}{dx}(e^x) =$	$\frac{d}{dx}(\ln(x)) =$	$\frac{d}{dx}(x^k) =$ where $k \neq 0$
$\frac{d}{dx}(c) =$ where $c$ is a constant	$\frac{d}{dx}(\sin(x)) =$	$\frac{d}{dx}(\cos(x)) =$
$\frac{d}{dx}(\tan(x)) =$	$\frac{d}{dx}(\sec(x)) =$	$\frac{d}{dx}(\arcsin(x)) =$
$\frac{d}{dx}(\arctan(x)) =$	$\frac{d}{dx}(f(x) \cdot g(x)) =$	$\frac{d}{dx}\left(\frac{f(x)}{g(x)}\right) =$
$\frac{d}{dx}(f(g(x))) =$	$\frac{d}{dx}(k \cdot g(x)) =$ where $k$ is a constant	$\frac{d}{dx}(f(x) + g(x)) =$
$\frac{d}{dx}(\csc(x)) =$	$\frac{d}{dx}(\cot(x)) =$	$\frac{d}{dx}( x ) =$

2. Write the equivalent integral formula *where possible*.