Name: _____   Date: _____

| Learning Goal 3.2 | Applying derivatives to trigonometric and exponential functions. |

The Number 'e'

Some Handy Derivatives

$y = e^x$	$y = a^x$	$y = \ln x$
		$y = \log_a x$

Just like before, these are now rules that do not need to be derived every time. They can be used as fact!

Assignment   # 5, 15, 21, 23, 36, 46, 47, 61   Quiz Next Day!

Example Differentiate.

a. $y = \dfrac{e^x}{1+x}$

b. $y = e^{c\tan\sqrt{x}}$

c. $f(x) = \cos(e^{\pi x})$

d. $g(x) = \sqrt{1 + xe^{-2x}}$