Math Sheet #7 **Due July 22, 2006**

Name: ..... Date: .....

solve	solve	solve	solve
$\frac{d}{dx}\mathrm{D} =$	$\frac{d}{dx}(ax)^{\mathrm{b}} =$	$\frac{d}{dx}(ax^{\mathrm{b}} + \mathrm{c}x) =$	$\frac{d}{dy}(\mathrm{a}y^{\mathrm{b}} - y^{\mathrm{c}} + \mathrm{d}y - \mathrm{f})$
$\frac{d}{dx}\mathrm{e}^{\mathrm{x}} =$	$\frac{d}{dy}\mathrm{c}^{\mathrm{y}} =$	$\frac{d}{dy}\ln(y) =$	

Power of x.

$\frac{d}{dx}\mathrm{c} = 0$; $\frac{d}{dx}x = 1$; $\frac{d}{dx}x^{\mathrm{n}} = \mathrm{n}\, x^{(\mathrm{n}-1)}$

Exponential / Logarithmic

$\frac{d}{dx}\mathrm{e}^{x} = \mathrm{e}^{x}$; $\frac{d}{dx}\mathrm{b}^{x} = \mathrm{b}^{x}\ln(\mathrm{b})$; $\frac{d}{dx}\ln(x) = 1/x$