

Name: \_\_\_\_\_

## Calculus

### Derivative Progression J: Tricks

Find the derivative of each function (  $\frac{dy}{dx}$  )

1)  $y = \pi$

9)  $y = \ln x^2$

2)  $y = \ln 5$

10)  $y = \ln x^3$

3)  $y = \sin^2 x + \cos^2 x$

11)  $y = \ln x^\pi$

4)  $y = \sec x \cot x$

12)  $y = \frac{1}{\sqrt{x^{-4}}}$

5)  $y = \sin x \sec \pi$

13)  $y = \sqrt{\frac{1}{2}(1 + \cos 2x)}$

6)  $y = (x^2 + 3x + 2)e^4$

14)  $y = e^{\ln(\tan x)}$

7)  $y = \ln e^x$

15)  $y = \sin \pi$

8)  $y = (e^{x^2})(e^{x-x^2})$

16)  $\frac{x}{y} = \frac{e^{\ln x}}{\tan \pi/4}$