

Precalc 15.5

- Find derivative of  $e^x$
- Find derivative of  $\ln|x|$
- Find derivative of  $\sin(x)$  and  $\cos(x)$

product derivative *store*

first derivative

differentiation *e ln radians*

friendly functions

graphing calculator

Saxon L37

1. No FMC, will have exit ticket instead  
Add to HW paper (top?)
2. Homework: class.name.date  
Shared folder by class time tomorrow

May 3-9:09 PM

Friendly functions

$y=e^x$   
 $y=\ln|x|$   
 $y=\sin x$   
 $y=\cos x$

$$y' = e^x$$

$$y' = \frac{1}{x}$$

$$y' = \cos x$$

$$y' = -\sin x$$

Trig functions: must be in radians!

Apr 28-3:33 PM

Practice:

$f(x) = \sin x$      $f'(x) = \cos x$

$f(x) = \cos x$      $f'(x) = -\sin x$

Apr 28-3:34 PM

$$y = 5 \sin x - 7x^4 + 6$$

$$y' = 5(\cos x) - 7 \cdot 4x^3 + 0$$

$$y' = 5 \cos x - 28x^3$$

$$y = 2e^x + \sin x$$

$$y' = 2e^x + \cos x$$

Mar 23-4:06 PM

$$y = \ln|x| - 5 \sin x + 3x^3$$

$$y' = \frac{1}{x} - 5 \cos x + 3 \cdot 3x^2$$

$$y' = \frac{1}{x} - 5 \cos x + 9x^2$$

$$y = 2 \ln|x| + 3e^x + x^2$$

$$y' = 2 \cdot \frac{1}{x} + 2e^x + 2x$$

$$y' = \frac{2}{x} + 2e^x + 2x$$

Mar 23-4:07 PM

$$y = 5 \cos x - 3 \sin x$$

exit ticket

$$y = 3 \ln|x| - 2e^x - \sqrt{x}$$

Wed 9:50

WS 1-10  
15.5

$$\frac{1}{2} \cdot \frac{1}{x} - \frac{1}{2} \cdot \frac{1}{\sqrt{x}} = \frac{1}{2\sqrt{x}}$$

Mar 23-4:07 PM



Mar 23-4:08 PM