

MA 181 WORKSHEET (3.3)

Name \_\_\_\_\_

Find the derivative:

1.  $\frac{d}{dx}[\sec x] = \frac{d}{dx} \left[ \frac{1}{\cos x} \right]$

2.  $\frac{d}{dx}[\csc x] = \frac{d}{dx} \left[ \frac{1}{\sin x} \right]$

3.  $f(x) = x \sin x$

4.  $y = \frac{x}{\sec x + \tan x}$

5. For  $f(x) = \sin x$ ,

Find  $f'(x)$

Find  $f''(x)$

Find  $f^{(3)}(x)$

Find  $f^{(4)}(x)$

Do you see a pattern? Find  $f^{(430)}(x)$