The Rules

$y = \sin(\chi)$ $y' = \cos(\chi)$	$y = \cos(\chi)$ $y' = -\sin(\chi)$	$y = \tan(\chi)$ $y' = \sec^2(\chi)$
$y = \sec(\chi)$ $y' = \sec(\chi)\tan(\chi)$	$y = \csc(\chi)$ $y' = -\csc(\chi)\cot(\chi)$	$y = \cot(\chi)$ $y' = -\csc^2(\chi)$

$$y = \sin(f(X)) \rightarrow y' = \cos(f(X)) \times f'(X)$$

$$y = \cos(f(X)) \rightarrow y' = -\sin(f(X)) \times f'(X)$$

$$y = \tan(f(X)) \rightarrow y' = \sec^2(f(X)) \times f'(X)$$

$$y = \sec(f(X)) \rightarrow y' = \sec(f(X))\tan(f(X)) \times f'(X)$$

$$y = \csc(f(X)) \rightarrow y' = -\csc(f(X))\cot(f(X)) \times f'(X)$$

$$y = \cot(f(X)) \rightarrow y' = -\csc^2(f(X)) \times f'(X)$$

$$y = \sin^n(X) \rightarrow y' = n\sin^{n-1}(X) \times \cos(X)$$

$$y = \cos^n(X) \rightarrow y' = n\cos^{n-1}(X) \times -\sin(X)$$

$$y = \tan^n(X) \rightarrow y' = n\tan^{n-1}(X) \times \sec^2(X)$$

$$y = \sec^n(X) \rightarrow y' = n\sec^{n-1}(X) \times \sec(X)\tan(X)$$

$$y = \csc^n(X) \rightarrow y' = n\csc^{n-1}(X) \times -\csc(X)\cot(X)$$

$$y = \cot^n(X) \rightarrow y' = n\cot^{n-1}(X) \times -\csc^2(X)$$