

**Chapter 3: Derivative Rules**

## Assignment Sheet

 Name \_\_\_\_\_  
 period                      2                      3                      4

Assn	Topic	HW	Qty
Day 39 Tue 17 Oct	<b>§3.1 Powers &amp; Polynomials</b> --- I can re-write any expression so that is in the form $ax^n$ --- I can use the power rule to take a derivative of $ax^n$ where n is any positive or negative, integer, rational or irrational number.	pp 129-130: #3-5, 6-36 (multiples of 3), 23, 35	17
Day 40 Thu 19 Oct	<b>§3.1 Powers &amp; Polynomials</b> --- I can re-write any expression so that is in the form $ax^n$ --- I can use the power rule to take a derivative of $ax^n$ where n is any positive or negative, integer, rational or irrational number.	pp 129-130: # 38-49 even, 56, 58, 62, 68, 83-90	15
Day 41 Fri 20 Oct	<b>§3.2 The Exponential Function</b> --- I can take the derivative of exponential function $y = e^x$ & $y = b^x, b > 1$	pp 135-136: #3-24 (multiples of 3), 38, 39, 42, 43, 45	13
Day 42 Mon 23 Oct	<b>§3.3 The Product Rule &amp; Quotient Rule</b> --- I can take the derivative of a product or quotient of two functions.	Do Product Rule questions: pp 139-140: #3, 6, 30, 31, 52 (a-b)	5
Day 43 Tue 24 Oct	<b>§3.3 The Product Rule &amp; Quotient Rule</b> --- I can take the derivative of a product or quotient of two functions.	Do Quotient Rule questions: pp 139-140: #9-27 (multiples of 3), 32, 52 (c)	8
Day 44 Wed 25 Oct	<b>§3.1 through §3.4</b> Clean Up Day for all the rules: --power--exponential--product--quotient--chain--	Rules Review pp 180-181: #1, 4*, 10, 24 get LCD, 50, 58, 59, 68* *Simplify after differentiating	10
Day 45 Thu 26 Oct	<b>TODAY Quiz Derivative Rules §3.1 - §3.4</b> --power--exponential--product--quotient--chain-- <b>§3.4 The Chain Rule</b> ---I can recognize the inner function and the outer function of a composition. ---I can take the derivative of a composition of functions using the chain rule.	pp 146-147: #3-11 (odd), 21, 28, 33, 36, 41, 45, 57-58, 71	15
<b>2<sup>nd</sup> QUARTER</b>			
Day 46 Tue 31 Oct	<b>§3.4 The Chain Rule &amp; Rules Review</b> ---I can take the derivative of a composition of functions using the chain rule. ---I can write the equation of a tangent line to a function in point-slope form and use the sign of the second derivative to determine if the tangent line is above or below the curve.	Rules Review pp 180-182 #3*, 14, 29, 41*, 43, 65**, 72, 79, 80, 95 (a-d) *Simplify after differentiating **Simplify before differentiating	9
Day 47 Wed 1 Nov	<b>§3.5 Trigonometric Functions</b> --- I can take the derivatives of $\sin(x)$ , $\cos(x)$ , $\tan(x)$ , $\cot(x)$ , $\sec(x)$ , $\csc(x)$	pp 153-154: #2, 3, 6, 7, 10, 11, 18, 19, 24, 36, 38, 42, 45, 54, 60	15
Day 48 Thu 2 Nov	<b>§3.7 Intro to Implicit Differentiation &amp; §3.6 Chain Rule and Inverse Functions to find derivatives of <math>\arctan(x)</math> and <math>\arcsin(x)</math> and <math>\ln(x)</math></b> --- I know the derivatives of $\arctan(x)$ and $\arcsin(x)$ and $\ln(x)$	p 159: #3, 5, 7, 17, 19, 21, 28, 32, 41, 45	10
Day 49 Fri 3 Nov	<b>§3.6 Chain Rule and Inverse Functions</b> --- I can take the derivatives of $\arctan(x)$ and $\arcsin(x)$ and $\ln(x)$ and composite functions.	p 159: # 2, 6, 8, 10, 22-26, 30, 31, 37, 39	13
Day 50 Mon 6 Nov	<b>Derivatives with Tables</b> Wrap it Up: Derivative Rules Review	Review Sheet MC Questions #1-17 Show all work on your own paper!	17
Day 51 Tue 7 Nov	Wrap it Up: Derivative Rules Review	Review Sheet FRW Questions #1-12 (Skip #13-14 for now)	12
Day 52 Wed 8 Nov	<b>Final Review Derivative Rules</b> Rules for Derivatives of functions: power, exponential, product, quotient, chain, trig, $\arctan(x)$ , $\arcsin(x)$ , $\ln(x)$ . (? logarithm base b)		
Day 53 Thu 9 Nov	<b>TEST Derivative Rules</b>		