

Calculus

UNIT#4 Limits and Intro to Derivatives

CONCEPT	HOMEWORK	Difficulties?
Limit notation and evaluating limits (left/right limits, properties, factoring, rationalizing)	Pg 98 #4-10	
Limit Techniques	Pg 105 # 8-10,16	
First Principles	Pg. 83#1b, 2, 3-6, 8-11	
Applications – Velocity/Acceleration	Pg 92 #1-13, 14ab	
Continuity	Pg 111 #4,5,7-13	
Review	Pg 115 #1,2abc, 4, 8-11, 16-18 Handout	
Test		

UNIT#5 The Derivative Function

CONCEPT	HOMEWORK	Difficulties?
The definition of the derivative. The existence of derivatives. The derivative of $y = x^n$	p. 130 #1,2,11,12 p. 138 #2-4	
	p. 138 # 5-23	
The Product Rule	p. 145 #1,4bcdgh,5,6,9-12	
The Power of a Function Rule	p. 145 #2,4e,f,7,8	
The Quotient Rule	p. 150 #4-13	
The Chain Rule	p. 152 #1-12, p 158 #2,3	
	p 158 #4-12,15, pg 163#3,4	
Review	p. 163 #5, 7-13, 15-20, p.166 #2,4-10	
Test		

UNIT #6: Applications of Derivatives

Derivative Techniques	p. 178 2 odds, #3c, 4-9, 12	
Velocity and Acceleration	P 185 #3-15,17	
Applications	p 193 #3-10, 12, 15	
	p. 195 #16,18,19,21,23	
	p. Sheet #1-13	
	p. 195 #20 Sheet #14-16	
Review	p. 219 #1-9,11,17-20,22 p.213 #1-7,9	
Test		

UNIT #7: Optimization

Maximum and Minimum Values of Functions	sheet p. 201 #3e,f,4,6,9,10	
Optimization	p.206 #1,3-6,10	
	p.206 #7-9,11 p.214#5,6	
	p.208 #14 p.214#7-10, sheet	
Review	p.219 #10,14,16,25-31	
Test		

UNIT #8: Derivatives of Other Functions

Derivatives of Exponential Functions base e .	p.302 #3-14	
Derivatives of the natural Logarithmic Function	p. 309 #3-11,14	
Derivatives of Log and exponential functions with bases other than e .	p.315 #1-4, 6-10	
Derivatives of the primary trigonometric functions and the reciprocal functions	p.400 #1-3	

Applications	p.403 #1-11 p.320 #2a,3-8,11	
Review	p.330 #1-17, p.333 #1-8 sheet (trig)	
Test		

UNIT #9: Curve Sketching

Increasing and decreasing Functions	p.342 #1,4b6-12	
Concavity and POI's	p.369 #(2,3)ab,4bc,5,6,8-10	
Asymptotes, Even and Odd Functions	p.155 #1-5, 8-13 $y = \frac{\ln x}{x^2}$, $y = \frac{x^2}{e^x}$, $y = \frac{\ln x}{x^2 - 1}$	
Algorithm for Curve Sketching	p.375 #1cdfgh	
Review	p.375 #11,2,3 p.378 #4b,6d,7a,8	
Review	p.378 #7b,8-10,12acd p.381 #3	
Test		

UNIT #10: Antiderivatives (University Prep if time)

Antiderivatives	2 sheets	
	2 more sheets	
Similar Triangles	p.460 #1,4,6,7 p.539 #3	
First Principles Area	Handouts	
Quest		

Exam Prep

	p.383-7 and sheets	
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