Welcome to the First Year Sciences Calculus Survey

Please try to fill out the form so that it approximates your department's consensus on what should be in this course. For each item, tick one box in each of the two columns below it.

Please use the following interpretations:

- Core: topics which must be taught and take approximately 75% of the course.

- Additional: a list of topics which need not be taught, but a subset of them should be taught for breadth.

- Omit: this topic is not important; it should be left out of the analysis.

1. Your institution is:

nits	
2. Estimating a limit using a numerical or graphical a	approach
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
3. Determining one-sided limits	
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
4. Different ways that a limit can fail to exist	
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
5. Studying and using of the epsilon-delta definition	of limit
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
6. Evaluating limits using properties of limits	
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
7. Developing and using a strategy for finding limits	
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.

8. Evaluating a limit using the dividing out technique (dom	inating power analysis)
This topic is taught in Calculus I.		This is a core topic.
This topic is taught in Calculus II.		This is an additional topic.
This topic is not taught in Calculus I or II.		This topic should be omitted.
9. Evaluating a limit using the rationalizing technique		
This topic is taught in Calculus I.		This is a core topic.
This topic is taught in Calculus II.		This is an additional topic.
This topic is not taught in my school.		This topic should be omitted.
10. Evaluating a limit using the Squeeze Theorem		
This topic is taught in Calculus I.		This is a core topic.
This topic is taught in Calculus II.		This is an additional topic.
This topic is not taught in Calculus I or II.		This topic should be omitted.
11. Interpreting in everyday language the meaning of	a lin	niting value in an applied context
This topic is taught in Calculus I.		This is a core topic.
This topic is taught in Calculus II.		This is an additional topic.
This topic is not taught in Calculus I or II.		This topic should be omitted.
12. Determining continuity at a point and continuity or	n an	open interval
This topic is taught in Calculus I.		This is a core topic.
This topic is taught in Calculus II.		This is an additional topic.
This topic is not taught in Calculus I or II.		This topic should be omitted.
13. Determining continuity on a closed interval		
This topic is taught in Calculus I.		This is a core topic.
This topic is taught in Calculus II.		This is an additional topic.
This topic is not taught in Calculus I or II.		This topic should be omitted.
14. Using the limit properties of continuity to establish	limi	s of function compositions and combinations
This topic is taught in Calculus I.		This is a core topic.
This topic is taught in Calculus II.		This is an additional topic.
This topic is not taught in Calculus I or II.		This topic should be omitted.

15. Demonstrating an understanding of the Inter	mediate Value Theorem
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
16. Determining end behavior of functions - alge	braic and transcendental
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
17. Finding and sketching the vertical asymptote	es of the graph of a function
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
18. This is a comment box for the Limits.	

ifferentiation	
10. Finding the clone of the tangent line to a	vivon function at a apposition input value
The tangent in coloring the slope of the tangent line to a g	
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
20. Using the limit definition to find the derivat	ive of a function
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
21. Understanding the relationship between d	ifferentiability and continuity
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
22. Finding the derivative of a function using t	he Constant Rule
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
23. Finding the derivative of a function using t	he Power Rule
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
24. Finding the derivative of a function using t	he Constant Multiple Rule
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.

25. Finding the derivative of a function using the S	um and Difference Rules
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
26. Finding the derivatives of the sine function and	l of the cosine function
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
28. Using derivatives to find rates of change	
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I and II.	This topic should be omitted.
29. Approximating derivatives from the graph	
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I and II.	This topic should be omitted.
20. Finding the derivative of a function using the D	
This tagic is tagent in Colorly I	
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
31. Finding the derivative of a function using the Q	puotient Rule
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.

32. Finding the derivative of the tangent, cotar	ngent, secant, and cosecant functions
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
33. Finding a higher-order derivative of a funct	tion
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
34. Finding the derivative of a composite funct	ion using the Chain Rule
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
35. Finding the derivative of a function using t	ne General Power Rule
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
36. Simplifying the derivative of a function usir	ng algebra
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
37. Finding the derivative of a composition inv	olving a transcendental function
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
38. Finding the derivative of a function involvir	ng the natural logarithmic function
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.

39. Defining and differentiating exponential functions	that have bases other than e
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
40. Interpreting in everyday language the meaning of	f a numerical derivative value in an applied context
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
41. Distinguishing between functions written in implic	cit form and explicit form
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
42. Using implicit differentiation to find the derivative	of a function
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
43. Finding derivatives of functions using logarithmic	differentiation
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
44. Finding the derivative of an inverse function	
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
45 Differentiation on inverse trigonometric function	
	I his is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.

46. Applying implicit differentiation to a variable	relationship to establish a relationship between their rates
of change	
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
47. Using related rates to solve real-life problen	ns
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
48. Approximating a zero of a function using Ne	ewton's method
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
49. Demonstrating failures of Newton's method	graphically and algebraically
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
50. This is a comment box for the Differentiation	n.

pplications of Differentiation	
51. Understanding the definition of local and g	lobal extrema of a function on an interval
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
52. Understanding the definition of local extreme	ma of a function on an open interval
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
53. Finding extrema on a closed interval	
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
54. Demonstrating an understanding of the Ro	olle's Theorem
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
55. Demonstrating an understanding of the the	e Mean Value Theorem
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
56. Determining intervals on which a function	is increasing or decreasing
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.

57. Applying the First Derivative Test to find relative e	extrer	na of a function
This topic is taught in Calculus I.		This is a core topic.
This topic is taught in Calculus II.		This is an additional topic.
This topic is not taught in Calculus I or II.		This topic should be omitted.
58. Determining intervals on which a function is conca	ave ı	upward or concave downward
This topic is taught in Calculus I.		This is a core topic.
This topic is taught in Calculus II.		This is an additional topic.
This topic is not taught in Calculus I or II.		This topic should be omitted.
50. Finding any prints of inflaction of the array of a fi		
I his topic is taught in Calculus I.		This is a core topic.
This topic is taught in Calculus II.		This is an additional topic.
This topic is not taught in Calculus I or II.		This topic should be omitted.
60 Applying the Second Derivative Test to find relativ	0 00	treme of a function
This topic is taught in Calculus II.		This is an additional topic.
This topic is not taught in Calculus I or II.		This topic should be omitted.
61. Determining (finite) limits at infinity		
This topic is taught in Calculus I.		This is a core topic.
This topic is taught in Calculus II.		This is an additional topic.
This topic is not taught in Calculus I or II.		This topic should be omitted.
62. Determining the horizontal asymptotes, if any, of t	the g	raph of a function
This topic is taught in Calculus I.		This is a core topic.
This topic is taught in Calculus II.		This is an additional topic.
This topic is not taught in Calculus I or II.		This topic should be omitted.
C2. Determining infinite limits at infinite		
I his topic is taught in Calculus I.		I NIS IS A CORE TOPIC.
This topic is taught in Calculus II.		This is an additional topic.
This topic is not taught in Calculus I or II.		This topic should be omitted.

64. Analyzing and sketching the graph of a functi	on using information form the first and second derivatives
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
65. Generating an objective function and domain	in an applied optimization problem
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
66. Finding the absolute max or min of a given fu	nction in an applied setting
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
C7. Understanding the second of a tension line of	
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
68. Comparing the value of the differential dy wi	th the actual change in v. Delta v
This topic is not taught in Calculus I or II.	This topic should be omitted.
69. Estimating a propagated error using a differen	ntial
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This tonic is not taught in Calculus Lor II	This topic should be omitted
70. Finding the differential of a function using diff	erentiation formulas
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.

71. This is a comment box for the Applications of Differentiation.

72. Interpreting an indefinite integral as an ant	tiderivative
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
73. Using basic rules of antidifferentiation to fi required	nd antiderivatives of simple functions, where no substitut
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
74. Solving initial value problems	
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
75. Using sigma notation to write and evaluate	e a sum
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
76. Demonstrating an understanding of the co between its derivative and the input axis	nnection between the total change of a function and the
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.

77. Approximating the area of a plane region between the curve $y=f(x)$ and x-axis		
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
78. Finding the area of a plane region using limits		
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
79. Understanding the definition of a Riemann sum		
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
00 Evoluting a definite integral using limits		
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
81. Evaluating a definite integral using properties of c	lefinite integrals	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II	This is an additional tonic	
This topic is not taught in Calculus Lor II	This tonic should be omitted	
82. Evaluating a definite integral using the Fundamer	ntal Theorem of Calculus	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
02. Understanding and using the March March T	m for Integrals	
83. Understanding and using the Mean Value Theore		
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	

84. Finding the average value of a function over a closed interval		
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
85. Understanding and using the Second Fundar	mental Theorem of Calculus (i.e. the second half of the	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
86. Understanding and using the Net Change Th applied context)	eorem (Fundamental Theorem of Calculus Part II in	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
87. Approximating definite integrals given the gra	aph (and only the graph) of a function	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
88. Using a change of variables (substitution) to	find an indefinite integral	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
89. Using the General Power Rule for Integration	n to find an indefinite integral	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	

90. Using a change of variables to evaluate a definite integral		
This topic is taught in Calculus I.		This is a core topic.
This topic is taught in Calculus II.		This is an additional topic.
This topic is not taught in Calculus I or II.		This topic should be omitted.
91. Evaluating a definite integral involving an even or	odd	function
This topic is taught in Calculus I.		This is a core topic.
This topic is taught in Calculus II.		This is an additional topic.
This topic is not taught in Calculus I or II.		This topic should be omitted.
92. Interpreting in everyday language the meaning of	a de	finite integral value in an applied context
This topic is taught in Calculus I.		This is a core topic.
This topic is taught in Calculus II.		This is an additional topic.
This topic is not taught in Calculus I or II.		This topic should be omitted.
93. Finding position and velocity of a particle in rectilir	near	motion using integration
This topic is taught in Calculus I.		This is a core topic.
This topic is taught in Calculus II.		This is an additional topic.
This topic is not taught in Calculus I or II.		This topic should be omitted.
94 Approximating a definite integral using the Midpoi	nt Di	
This tonic is taught in Calculus I		This is a core tonic
		This is an additional topic
I his topic is not taught in Calculus I or II.		i nis topic snould be omitted.
95. Approximating a definite integral using the Trapez	oida	l Rule
This topic is taught in Calculus I.		This is a core topic.
This topic is taught in Calculus II.		This is an additional topic.
This topic is not taught in Calculus I or II.		This topic should be omitted.
96. Approximating a definite integral using Simpson's	Rule	2
This topic is taught in Calculus I.		This is a core topic.
This topic is taught in Calculus II.		This is an additional topic.
This topic is not taught in Calculus I or II.	\square	This topic should be omitted.

97. Analyzing the approximate errors in the Trapezoidal Rule and Simpson's Rule		
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
98. Using the Log Rule for Integration to integrat	e a rational function	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
99. Integration of functions whose antiderivatives	s involve arcsin, arccos, and arctan	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
100. Integration of functions whose antiderivative	es involve arccsc, arcsec, and arccot	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
101. Using the method of completing the square	to integrate a function	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
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102. Reviewing the basic integration rules involv		
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
102 Developing properties of hyperbolic function		
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	

104. Differentiation and integration of hyperbolic functions		
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
105. Developing properties of inverse hyperbolic	functions	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
106. Differentiation and integration of functions in	volving inverse hyperbolic functions	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
107. This is a comment box for the Integration.		

ifferential Equations		
108. Checking if a function is a solutions to the	given differential equation	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
109. Using initial conditions to find particular sol	lutions of differential equations	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
110. Using slope fields to approximate solutions	s of differential equations	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
111. Constructing a slope field for a given differ	rential equations	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
112. Using Euler's Method to approximate solutions of differential equations		
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
113. Using separation of variables to solve a sir	mple differential equation	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	

114. Using exponential functions to model growth and decay in applied problems		
This topic is taught in Calculus I.		This is a core topic.
This topic is taught in Calculus II.		This is an additional topic.
This topic is not taught in Calculus I or II.		This topic should be omitted.
115. Using differential equations to model and solve a	applie	ed problems
This topic is taught in Calculus I.		This is a core topic.
This topic is taught in Calculus II.		This is an additional topic.
This topic is not taught in Calculus I or II.		This topic should be omitted.
This tenis is teucht in Calculus I		an be solved by separation of variables
This topic is taught in Calculus II.		I his is an additional topic.
This topic is not taught in Calculus I or II.		This topic should be omitted.
117. Solving and analyzing logistic differential equation	ons	
This topic is taught in Calculus I.		This is a core topic.
This topic is taught in Calculus II.		This is an additional topic.
This topic is not taught in Calculus I or II.		This topic should be omitted.
118. Determining steady states and their stability		
This topic is taught in Calculus I.		This is a core topic.
This topic is taught in Calculus II.		This is an additional topic.
This topic is not taught in Calculus I or II.		This topic should be omitted.
119. Constructing phase diagrams		
This topic is taught in Calculus I.		This is a core topic.
This topic is taught in Calculus II.		This is an additional topic.
This topic is not taught in Calculus I or II.		This topic should be omitted.
100 Heine legistic differential equations to medal and		
This tasis is taught in Coloulus I		
I nis topic is taught in Calculus II.		i nis is an additional topic.
This topic is not taught in Calculus I or II.		This topic should be omitted.

121. Solving a first-order linear differential equati	ion, and using linear differential equations to solve applied
problems	
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
122. Analyzing predator-prey differential equation	ns
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
123. Analyzing competing-species differential eq	uations
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
124. Analyzing disease dynamics differential equ	lations
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
125. This is a comment box for the Differential E	quations.

pplications of Integration		
126. Finding the area of a region between two	curves using integration	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
127. Finding the area of a region between inte	ersecting curves using integration	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
128. Describing integration as an accumulatio	on process	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
129. Finding the volume of a solid of revolutio	n using the disk method	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
130. Finding the volume of a solid of revolution using the washer method		
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
131. Finding the volume of a solid with known	cross sections	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	

132. Finding the volume of a solid of revolution using the shell method		
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
133. Determining when to use the disk or shell metho	od	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
134. Finding the arc length of a smooth curve		
I his topic is taught in Calculus I.		
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
135 Finding the area of a surface of revolution		
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
136. Finding the work done by a constant force		
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
137. Finding the work done by a variable force		
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
138. Understanding the definition of mass		
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II	This is an additional topic	
This topic is not taught in Calculus Lor II		

139. Finding the center of mass in a one-dimensional system		
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
140. Finding the center of mass in a two-dimer	nsional system	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
141. Finding the center of mass of a planar lan	nina	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
142. Using the Theorem of Pappus to find the	volume of a solid of revolution	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
143. Finding fluid pressure and fluid force		
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	

atogration Tochniques L'Hônital's Dula, and	Impropor Integrals	
negration rechniques, L'hopitais Rule, and		
145. Finding an antiderivative using integration	by parts	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
146. Solving trigonometric integrals involving p	owers of sine and cosine	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
147. Solving trigonometric integrals involving p	owers of secant and tangent	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
148. Solving trigonometric integrals involving s	ine-cosine products with different angles	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
149. Using trigonometric substitution to solve a	an integral	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
150. Using integrals to model and solve real-life applications		
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	

151. Understanding the concept of partial fraction dec	comp	osition
This topic is taught in Calculus I.		This is a core topic.
This topic is taught in Calculus II.		This is an additional topic.
This topic is not taught in Calculus I or II.		This topic should be omitted.
		· · · · · · · · · ·
152. Using partial fraction decomposition with linear fa	actor	s to integrate rational functions
This topic is taught in Calculus I.		This is a core topic.
This topic is taught in Calculus II.		This is an additional topic.
This topic is not taught in Calculus I or II.		This topic should be omitted.
153. Using partial fraction decomposition with quadra	itic fa	ctors to integrate rational functions
This topic is taught in Calculus I.		This is a core topic.
This topic is taught in Calculus II.		This is an additional topic.
This topic is not taught in Calculus I or II.		This topic should be omitted.
154 Evolution of indefinite integrals using a table of	into	and a second
154. Evaluation of Indefinite Integrals using a table of	Integ	
I his topic is taught in Calculus I.		This is a core topic.
This topic is taught in Calculus II.		This is an additional topic.
This topic is not taught in Calculus I or II.		This topic should be omitted.
155. Evaluation of indefinite integrals using reduction	form	ulas
This topic is taught in Calculus I.		This is a core topic.
This topic is taught in Calculus II.		This is an additional topic.
This topic is not taught in Calculus I or II.		This topic should be omitted.
156 Evaluation of indefinite integrals involving ration:	al fun	ictions of sine and cosine
This tonic is taught in Calculus I		This is a core topic
		This is an additional tonic
I his topic is not taught in Calculus I or II.		I his topic should be omitted.
157. Recognizing limits that produce indeterminate forms		
This topic is taught in Calculus I.		This is a core topic.
This topic is taught in Calculus II.		This is an additional topic.
This topic is not taught in Calculus I or II.		This topic should be omitted.

158. Applying L'Hôpital's Rule to evaluate a limit	
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
159. Evaluation of an improper integral that has an ir	nfinite limit of integration
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
160. Evaluation of an improper integral that has an ir	nfinite discontinuity
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.

161. This is a comment box for the Integration Techniques, L'Hospital's Rule and Improper Integral.

nfinite Series		
162. Listing the terms of a sequence		
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
163. Writing a formula for the n-th term of a se	quence	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
164. Determining whether a sequence converg	ges or diverges	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
165. Using properties of monotonic sequences	s and bounded sequences to show convergence	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
166. Understanding the definition of a convergent infinite series		
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
167. Knowing the convergence properties of geometric series		
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	

168. Using the n-th Term Test for Divergence of an infinite series		
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
169. Using the Integral Test to determine whether	an infinite series converges or diverges	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
170. Knowing the convergence properties of p- an	nd harmonic series	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
171. Using the Direct Comparison Test to determine whether a series converges or diverges.		
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
172. Using the Limit Comparison Test to determine	e whether a series converges or diverges	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
173. Using the Alternating Series Test to determine whether an infinite series converges		
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	

174. Using the Alternating Series Remainder to approximate the sum of an alternating series		
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
175. Classification of convergent series as abso	lutely or conditionally convergent	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
176 Using the Ratio Test to determine whether	a series converges or diverges	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II	This tonic should be omitted	
177. Using the Root Test to determine whether a	a series converges or diverges	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
178. Applying the convergence and divergence	tests for infinite series	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
179. Finding polynomial approximations of elementary functions and compare them with the elementary functions		
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	

180. Finding Taylor and Maclaurin polynomial	approximations of elementary functions
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
181. Using the remainder of a Taylor polynomi	al
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
182. Understanding the definition of a power s	eries
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
183. Finding the radius and interval of converg	gence of a power series
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
184. Determining the endpoint convergence o	f a power series
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
185. Differentiation and integration of power se	eries
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.
186. Finding the power series that represents	a function
This topic is taught in Calculus I.	This is a core topic.
This topic is taught in Calculus II.	This is an additional topic.
This topic is not taught in Calculus I or II.	This topic should be omitted.

187. Generate new power series from standard forms using algebra, substitution, differentiation, and/or		
Integration		
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
188. Finding a Taylor or Maclaurin series for a fur	nction	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
189. Finding a binomial series		
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
190. Using a basic list of Taylor series to find othe	er Taylor series	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
191. This is a comment box for the Infinite Series		

Conics, Parametric Equations, and Polar Co	ordinates		
192. Understanding the definition of a conic sec	ction		
This topic is taught in Calculus I.	This is a core topic.		
This topic is taught in Calculus II.	This is an additional topic.		
This topic is not taught in Calculus I or II.	This topic should be omitted.		
193. Analyzing and writing equations of parabo	las using properties of parabolas		
This topic is taught in Calculus I.	This is a core topic.		
This topic is taught in Calculus II.	This is an additional topic.		
This topic is not taught in Calculus I or II.	This topic should be omitted.		
194. Analyzing and writing equations of ellipses	s using properties of ellipses		
This topic is taught in Calculus I.	This is a core topic.		
This topic is taught in Calculus II.	This is an additional topic.		
This topic is not taught in Calculus I or II.	This topic should be omitted.		
195. Analyzing and writing equations of hyperb	olas using properties of hyperbolas		
This topic is taught in Calculus I.	This is a core topic.		
This topic is taught in Calculus II.	This is an additional topic.		
This topic is not taught in Calculus I or II.	This topic should be omitted.		
196. Sketching the graph of a curve given by a	set of parametric equations		
This topic is taught in Calculus I.	This is a core topic.		
This topic is taught in Calculus II.	This is an additional topic.		
This topic is not taught in Calculus I or II.	This topic should be omitted.		
197. Eliminating the parameter in a set of parametric equations			
This topic is taught in Calculus I.	This is a core topic.		
This topic is taught in Calculus II.	This is an additional topic.		
This topic is not taught in Calculus I or II.	This topic should be omitted.		

198. Finding a set of parametric equations to represent a curve		
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
199. Understanding two classic calculus problems brachistochrone problems	s, the tautochrone and	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
200. Finding the slope of a tangent line to a curve	given by a set of parametric equations	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
201. Finding the arc length of a curve given by a s		
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
202 Finding the area of a surface of revolution (n	arametric form)	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
203. Understanding the polar coordinate system		
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	

	204. Rewriting rectangular coordinates and equations in polar form and vice versa			
	This topic is taught in Calculus I.		This is a core topic.	
	This topic is taught in Calculus II.		This is an additional topic.	
	This topic is not taught in Calculus I or II.		This topic should be omitted.	
	205. Sketching the graph of an equation given in pola	r for	m	
	This topic is taught in Calculus I.		This is a core topic.	
	This topic is taught in Calculus II.		This is an additional topic.	
	This topic is not taught in Calculus I or II.		This topic should be omitted.	
	206. Finding the slope of a tangent line to a polar gra	ph		
	This topic is taught in Calculus I.		This is a core topic.	
	This topic is taught in Calculus II.		This is an additional topic.	
	This topic is not taught in Calculus I or II.		This topic should be omitted.	
	207. Identifying several types of special polar graphs			
	This topic is taught in Calculus I.		This is a core topic.	
	This topic is taught in Calculus II.		This is an additional topic.	
	This topic is not taught in Calculus I or II.		This topic should be omitted.	
	208. Finding the area of a region bounded by a polar	grap	n	
	This topic is taught in Calculus I.		This is a core topic.	
	This topic is taught in Calculus II.		This is an additional topic.	
	This topic is not taught in Calculus I or II.		This topic should be omitted.	
	200 Finding the points of interposition of two polar are	nho		
		apris		
	This topic is taught in Calculus II.		This is an additional topic.	
	This topic is not taught in Calculus I or II.		This topic should be omitted.	
210. Finding the arc length of a polar graph				
	This topic is taught in Calculus I.		This is a core topic.	
	This topic is taught in Calculus II		This is an additional topic	
	This topic is not taught in Calculus I or II		This tonic should be omitted	
		1 1		

211. Finding the area of a surface of revolution (polar form)		
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
212. Finding the area of a surface of revolution (pola	ar form)	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
213. Analyzing and writing polar equations of conics	8	
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
214. Understanding and using Kepler's Laws of planetary motion		
This topic is taught in Calculus I.	This is a core topic.	
This topic is taught in Calculus II.	This is an additional topic.	
This topic is not taught in Calculus I or II.	This topic should be omitted.	
215. This is a comment box for the Conics, Parame	tric Equations, and Polar Coordinates.	