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Calculus	
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James Stewart, Calculus, 7th Edition.	
Finney and Thomas, Calculus, 2nd Edition.	

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1	5.1 Areas and Distances	6	<p>Key Point: Learn some areas, distances and the relationship between the integral and areas.</p> <p>Difficulty: How to connect the relationship between areas and integrals.</p>	teach	Exercise 5.1
2	5.2 The Definite Integral	6	<p>Key Point: Learn the definition of the definite integral.</p> <p>Difficulty: How to compute the definite integral.</p>	teach	Exercise 5.2
3	5.3 The Fundamental Theorem of Calculus	6	<p>Key Point: Learn the fundamental theorem of Calculus and apply theorems to solve problems.</p> <p>Difficulty: Understand two theorems and what is the difference between them.</p>	teach	Exercise 5.3
4	5.4 Indefinite Integrals and the Net Change Theorem 5.5 The Substitution Rule	6	<p>Key Point: Learn the definition of the indefinite integral and the substitution rule.</p> <p>Difficulty: Be careful to compute the definite and indefinite integrals using the substitution rule.</p>	teach	Exercises 5.4, 5.5
5	6.1 Areas Between Curves	6	<p>Key Point: Learn areas between curves and logarithm defined as an integral.</p> <p>Difficulty: Be careful to compute areas between curves and some laws of logarithms using the fundamental theorem of Calculus.</p>	teach	Exercise 6.1
6	6.2 Volumes	6	<p>Key Point: Learn volumes and apply the integral to compute volumes.</p> <p>Difficulty: Image the figures of volumes and be careful to calculate volumes.</p>	teach	Exercise 6.2
7	6.3 Volumes by Cylindrical Shells	6	<p>Key Point: Learn volumes by cylindrical shells.</p> <p>Difficulty: Be careful to compute volumes of cylindrical shells and distinguish the difference between cylinders and cylindrical shells.</p>	teach	Exercise 6.3
8	6.5 Average Value of a Function 7.1 Integration by Parts	6	<p>Key Point: Learn the average value of a function and integration by parts.</p> <p>Difficulty: Understand the average value of a function and be careful to compute the definite</p>	teach	Exercises 6.5, 7.1

			and indefinite integrals using the integration by parts.		
9	7.2 Trigonometric Integrals	6	Key Point: Learn the trigonometric integrals. Difficulty: Be careful to compute indefinite integrals about powers and product of trigonometric functions.	teach	Exercise 7.2
10	Mid-Term Test	6	Mid-Term Test	test	None
11	7.3 Trigonometric Substitution	6	Key Point: Learn the trigonometric substitution. Difficulty: Be careful to compute the indefinite integral using the trigonometric substitution.	teach	Exercise 7.3
12	7.4 Integration of Rational Functions by Partial Fractions	6	Key Point: Learn the integration of rational functions by partial fractions. Difficulty: Be careful to compute the indefinite integral of rational functions using partial fraction decomposition.	teach	Exercise 7.4
13	7.7 Approximate Integration	6	Key Point: Learn the approximation integration. Difficulty: Be careful to compute the definite integral using some approximations such as left (right) endpoint, midpoint rule, trapezoidal rule,	teach	Exercise 7.7
14	7.8 Improper Integrals	6	Key Point: Learn improper integrals and some tests such as comparison test and limit comparison test. Difficulty: Be careful to compute improper integrals using some tests.	teach	Exercise 7.8
15	8.1 Arc Length 8.2 Area of a Surface of Revolution	6	Key Point: Learn the arc length and the area of a surface of revolution. Difficulty: How to compute the arc length using differentiation and integration; formulae about areas of surfaces of revolution using x, y axes, respectively; learn polar coordinates.	teach	Exercises 8.1, 8.2
16	9.3 Separable Equations 9.5 Linear Equations	6	Key Point: Learn separable equations and linear equations. Difficulty: Be careful to solve differential equations using the separation and the integration factor.	teach	Exercises 9.3, 9.5
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Mid-Term Test	Scores according to standard answers	30%
Final Test	Scores according to standard answers	30%
Competition Test	Scores according to standard answers	10%
Quiz	Scores according to standard answers	30%
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