Exam 4 covers sections 4.1, 4.2, 4.3, 4.4, 4.5, 4.7, 4.10


2. Your exam will contain TWO Basic Skills No Partial Credit problems (BSA questions). One each from 4.1 and 4.4.

3. Your exam will contain 3 - 5 T/F questions similar to the ones in the Chapter Review.

4. There will 5 - 6 partial-credit questions on the exam.

5. For Section 4.1: There are four types of problems from this section: 1) find the absolute maximum and absolute minimum for $f$ on a closed interval (problems 47 - 52, 57, 58), 2) find the critical numbers for $f$ (problems 31 - 46), 3) Identify local and absolute max/min graphically (problems 3 - 6) and 4) sketch a continuous function that satisfies certain conditions (problems 7 - 14).

6. For Section 4.2: Be comfortable with problems that ask you to use the Mean Value Theorem given $f$ and a closed interval. (problems 11 - 14)

7. For Section 4.3: One type of problem that you should be able to do from this section is sketch a continuous function that satisfies certain properties (problems 26 - 30). The other type of problem from this section asks you to find critical numbers for $f$, intervals of increasing, decreasing, concave up, concave down, identify local extrema and inflection points (problems 11 - 20, 33 - 44 no sketch).

8. For Section 4.4: Be comfortable solving limits from this section - many of which require the use of L'Hopital's Rule, but not all. If you are going to use L'Hopitals rule on a partial credit problem, be sure to indicate the indeterminate form before applying the rule. (problems 5, 7, 9-11, 15, 17, 21, 29, 45, 47, 49) Note that problems of the form $1^\infty$, $0^0$, or $\infty^0$ will not be asked.

9. For Section 4.5: Not asked to sketch from this section.

10. For Section 4.7: Be comfortable solving the following problems 2-6, 8, 10-12, 29 and 30. You will have a problem like one of these on your exam.

11. For Section 4.10: You may be asked one of three types of problems from this section: 1) find the most general antiderivative for $f$ (problems 1 - 16), 2) solve the equation $f'$ or $f''$ for $f$ with or without given conditions to solve for the constants (problems 19 - 42) and 3) find the antiderivative in context of rectilinear motion (problems 59 - 64).

Directions found on the front cover of your text
Use of books, notes or calculators is NOT permitted.

Please show all your work! Answers without appropriate supporting work may not receive full credit.

Clearly indicate your answers to each problem by underlining them or placing a box around your answers!

Trigonometric functions at the values $0, \pi/6, \pi/4, \pi/3, \pi/2$, etc must be evaluated!