MTH 131.001 Final Exam Information

Our final exam is scheduled for our last class period on Wednesday, December 10. If you need to reschedule your final exam or take it in the testing center, please make arrangements as soon as possible. Any rescheduled exams must be taken in the testing center (or in class during another of your instructor's final exams), and they must be completed on or before Thursday, December 11.

The final exam will consist of ten 10-point problems (which may have multiple parts). In order to receive full credit for the problems, you must show all work or supply explanations that support your answer.

The final exam will cover the objectives listed below. Focus your studying on these skills.

Final exam skill list

1. Use algebraic techniques to resolve 0/0 indeterminate forms. (Sec 2.3/Lec 5)
2. Classify discontinuities. (Sec 2.4/Lec 7)
3. Solve various application problems involving rates of change. (Sec 3.4/Lec 14)
4. Use implicit differentiation to find the derivative of an implicitly-defined function. (Sec 3.8/Lec 16)
5. Use logarithmic differentiation. (Sec 3.9/Lec 18)
6. Determine the linearization of a function at a point, and use it to approximate function values near the point. (Sec 4.2/Lec 20)
7. Find the critical numbers of a function. (Sec 4.3/Lec 22)
8. Find the absolute extreme values of a continuous function on a closed interval. (Sec 4.3/Lec 22)
9. Use the first derivative to find intervals on which a function is increasing/decreasing. (Sec 4.5/Lec 24)
10. Use the first derivative test to locate relative extrema. (Sec 4.5/Lec 24)
11. Use the second derivative to find intervals on which the graph of a function is concave up/down. (Sec 4.5/Lec 25)
12. Evaluate limits at infinity. (Sec 4.6/Lec 26)
13. Apply L'Hopital's rule to resolve indeterminate forms. (Sec 4.8/Lec 28)
14. Use algebraic techniques to rewrite limits so that L'Hopital's rule applies. (Sec 4.8/Lec 28)
15. Use basic integration rules to evaluate indefinite integrals. (Sec 4.10/Lec 30)
16. Solve initial value problems. (Sec 4.10/Lec 30)
17. Use Riemann sums to approximate definite integrals. (Sec 5.2/Lec 32)
18. Use the Fundamental Theorem of Calculus to evaluate definite integrals. (Sec 5.3/Lec 34)
19. Use and evaluate definite integrals in applications involving area and average value. (Sec 5.3/Lec 33)
20. Use substitution to evaluate indefinite or definite integrals. (Sec 5.5/Lec 36)