FINAL REVIEW

To prepare for the test, you should study **all quizzes and tests**, as well as the **homework problems** listed below OR the similar examples done in class from the listed topics.

Important topics:

1) Finding limits using properties, The Squeeze Theorem, L'Hopital rule.
(several questions)

2.3 Exercises 11 – 32, 37 – 40, 41 – 46
2.2 Exercises 5, 7, 8, 9, 11, 12, 31 – 43
2.6 Exercises 15 – 42
3.4 Exercises 39 – 50
4.4 Exercises 11 – 68
Handout Review Test 1 Exercises 1, 4 – 28
Handout Review Test 2 Exercise 4
Handout 2.2, 2,3 Part I Exercises 4, 6 – 9
Handout 2.2, 2.3 Part II Exercises 3, 4, 7 – 10
Handout 2.6 Exercises 1 -4

2) Continuity
(one or two questions)

2.5 Exercises 45, 46
Handout Review Test 1 Exercises 3

3) Finding tangents to the graph of a function
(one or two questions)

2.7 Exercises 3, 4, 9, 10, 20, 21, 27 – 29, 59, 60
3.1 Exercises 33 – 39, 55 – 59, 61, 62
3.2 Exercises 31 – 34
3.3 Exercises 21 - 25
3.4 Exercises 51 – 54 , 55a, 59, 60
3.5 Exercises 25 – 29
3.6 Exercises 33, 34, 36
3.7 Exercises 25 - 29
Handout Review Test 1 Exercises 36, 38, 40, 43 – 45, 46, 47, 72
Handout 2.7 Exercises 5 – 10
Handout 2.7, 2.8 – Part II Exercises 9, 11

4) Finding derivatives of functions
using basic formulas, the product rule, the quotient rule, the chain rule, and logarithmic differentiation.
(multiple questions)

3.1 Exercises 3 – 32
3.2 Exercises 3 – 26
3.3 Exercises 1 – 16
3.4 Exercises 7 – 50, 75
3.5 Exercises 49 – 60
3.6 Exercises 2 – 30, 39 – 50
Handout Review Test 1 Exercises 29 – 35, 41, 42, 51 – 69 , 74 - 76

5) The derivative as a rate of change and related rates
(one or two questions)

2.7 Exercises 11, 13, 15,43, 44
3.9 Exercises 3, 6, 17, 23, 33
Handout 3.7 – 3.9 All exercises
Handout Exercises Chapter 5 and 7.1 Exercise 36

6) Implicit Differentiation
(one or two questions)

3.5 Exercises 5 – 20, 35 – 38

7) Extreme values of functions
(one or two questions)

4.1 Exercises 29 – 44, 47 – 62
Handout Review Test 2 Exercises 1, 2
Handout 4.1, 4.2 Exercises 5, 6

8) Optimization applications
(one or two questions)

Handout 4.1, 4.2 Exercises 2, 3, 4
4.7 Examples 1 – 5, Exercises 5, 9, 15, 21, 23, 25, 51
Handout 4.7 Exercises 1 – 7

9) Graphing functions
(one question)

4.5 Exercises 1, 9, 13, 17, 21, 25, 29, 33, 37, 43, 45, 47, 51
Handout Review Test 2 Exercise 3

10) Finding antiderivatives and evaluating definite integral
(multiple questions)

4.9 Exercises 1 – 22
5.3 Exercises 19 – 44
5.4 Exercises 5 – 18, 21 – 46
5.5 Exercises 7 – 48, 53 – 73
7.1 Exercises 3 – 42|
Handout Exercises Chapter 5 and 7.1 Exercises 1 – 32

11) Finding areas
(one or two questions)

5.3 Exercises 45 – 48
5.5 Exercise 79
Handout Exercises Chapter 5 and 7.1 Exercises 35, 37, 40, 41