

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 topics listed here.

I FUNCTIONS

- function notation
- evaluating a function
- domain and range
- finding x and y-intercepts
- operations with functions
- finding the inverse of a one-to-one function

Review Test 1	Exercises 2, 3, 4, 5, 6, 8, 9, 10, 11, 12
Review Test 2	Exercises 4, 5, 6, 8, 11
Review Test 3	Exercises 1,6 /page 2, exercise 11/page 3
Handout 2.1 – 2.3	Exercises 1, 5, 6, 7, 8, 9, 10, 11
Section 2.3	Exercises 4 – 10, 13, 30, 33
Section 5.1	Exercise 61
Section 5.2	Exercises 95, 97, 99, 101
Section 6.1	Exercises 1, 4, 7, 10, 13, 17 – 23, 99 – 102, 105 – 108
Section 6.2	Exercises 75, 76
Section 6.3	Exercises 47 – 50
Section 6.4	Exercises 37, 51
Section 7.1	Exercises 95 – 98
Section 7.5	Exercises 113 – 116
Section 7.7	Exercises 101 – 114
Section 9.2	Exercises 1, 5, 9, 13, 29, 31, 39, 41, 43, 51 – 54, 61 – 64
Section 9.3	Exercises 47 - 52

II FACTORING POLYNOMIALS

- factoring the greatest common factor
- factoring by grouping
- factoring special products
- factoring trinomials
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Handout Chapter 5	Exercises 4, 5, 6, 9
Chapter 5 – page 353	Exercises 19 – 30
Section 5.6	All homework problems

III GRAPHING

- graphing a linear function using the intercepts
- graphing a quadratic function using the vertex and intercepts
- graphing a radical function by plotting points
- graphing an exponential function by plotting points
- graphing a logarithmic function by plotting points
- graphing conic sections (circle, ellipse, hyperbola)

Review Test 2	Exercise 9/page 2, Exercises 19, 20/page 4
Review Test 3	8, 9, 10 (Chapter 9), 4, 5, 7 (Chapter 10)
Handout 8.3	Exercises 1 – 5
Section 2.4	Exercises 1 – 12, 47 – 50
Section 7.1	Exercises 91 – 94
Section 8.3	Exercises 17, 20, 23, 24, 27, 29, 31, 33, 36, 37

Section 9.3	Exercises 43, 44
Section 10.1	Exercises 49, 52, 55, 56,
Section 10.2	Exercises 4, 7, 9, 12, 15
Section 10.3	Exercises 5, 8, 9, 12, 15, 18

IV MORE ABOUT LINEAR EQUATIONS

- slope of a line
- equations of lines
- parallel and perpendicular lines

Handout 2.4 & 2.5	Exercises 4, 5, 7, 10 – 16
Section 2.5	Exercises 3, 10, 15, 20, 37, 40, 53, 56

V SOLVING EQUATION AND SYSTEMS OF EQUATIONS

- solving linear equations
- solving absolute value equations
- solving quadratic equations by factoring, square root property, quadratic formula, completing the square
- solving polynomial equations by factoring
- solving rational equations
- solving radical equations
- solving exponential and logarithmic equations
- solving systems of two and three linear equations
- solving nonlinear systems of equations

Review Test 1	Exercise 2(Chapter 4)
Review Test 2	Exercises 1 – 15, 17, 18 (Chapter 8)
Review Test 3	Exercise 12 (Chapter9)
Handout Review Chapter 1	Exercises 12 (objectives 1,2,3, mixed practice), 13
Handout Chapter 5	Exercise 10
Handout 8.1 & 8.2	Exercises 1, 6 (Square Root Property), 1 (Completing the Square), 1(More applications)
Section 3.1	Exercises 63, 67, 69, 83
Section 3.3	Exercises 5, 7, 8, 9, 11, 13, 14, 15, 17, 19, 23
Section 5.7	Exercises 1, 5, 10, 15, 20, 25, 30, 35, 40, 45, 51 – 58
Section 6.6	Exercises 35 – 38, 47 – 50
Section 6.7	Exercises 1 – 14
Section 7.6	Exercises 39 – 50
Section 8.1	Exercises 57 – 62 , 65 – 68
Section 8.2	Exercises 47, 49, 51, 53, 57, 59, 67 – 72
Section 8.4	Exercises 1, 5, 9, 10, 15, 19, 20, 39, 45
Section 9.3	Exercises 73 – 76
Section 9.5	All assigned
Section 10.5	All assigned

VI SOLVING INEQUALITIES

- solving linear inequalities in one variable
- solving absolute value inequalities
- solving linear inequalities in two variables
- solving polynomial and rational inequalities

Review Test 1	Exercises 1, 2(Chapter4)
Review Test 3	Exercises 24 (page 1)
Section 4.4	All assigned
Section 8.5	All assigned

VII SIMPLIFYING EXPRESSIONS

- simplifying radical expressions
- simplifying expressions containing complex numbers
- working with logarithms
- working with exponents

Review Test 2 Exercises 1, 2, 3, 10 (Chapter 7)
Review Test 3 Exercises 2, 3, 4, 5, 7 (Chapter 9)

VIII OTHER TOPICS

- working with summation notation and factorial notation
- working with binomial coefficients
- The Binomial Theorem
- distance formula
- midpoint formula
- finding the center and radius of a circle by completing the square
- dividing polynomials using long division
- writing a quadratic equation knowing one or two solutions

Review Test 3 Exercises 1, 2, 3, 6 (Chapter 10), exercises 1 – 4 (Chapter 11)
Section 6.4 All assigned
Review Test 2 Exercises 16/page 3

IX APPLICATIONS

Review Test 3 Exercises 25 – 28 (Chapter 8 – page 1)
Review Test 2 Exercise 7 (page 2), 21, 22 (page 4)
Handout Chapter 5 Exercises 1, 5, 6, 9, 10 (Applications)
Handout 8.1 & 8.2 Exercises 2, 3, 4 (Square Root), 2, 8 (More applications)
Section 3.3 Problems 41, 42, 46
Section 4.4 Problem 63
Section 5.7 Problems 65, 66, 82, 83
Section 6.7 Problems 15 – 18, 21 – 24, 31, 37, 45
Section 8.2 Problems 77 – 80
Section 8.3 Problems 59, 61, 63, 65, 67
Section 9.1 Problems 39, 61 – 63
Section 9.5 Problems 99 – 102