

| Hours | Topics | Learning Objectives | Text Exercises |
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| 2 | Chapter 1: Foundations | By the end of this section, students will understand: <ul style="list-style-type: none"> *order of operations *evaluate an algebraic expression *simplify an algebraic expression *signed number arithmetic *working with fractions *converting from fractions to decimals *the difference between integers, rationals and reals *properties of real numbers | 19-42 59-126 151 – 192 279- 282 297 – 300 382 |
| 1 2 | Chapter 2: Solving Linear Equations 2.1 Use a General Strategy to Solve Linear Equations | By the end of this section, students will be able to: <ul style="list-style-type: none"> *Solve linear equations using a general strategy *Classify equations *Solve equations with fraction or decimal coefficients | all |
| 1 | 2.3 Solve a Formula for a Specific Variable | By the end of this section, students will be able to: <ul style="list-style-type: none"> *Solve a formula for a specific variable | problems 165-193 odd |

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| 1 | 2.5 Solve Linear Inequalities | <p>By the end of this section, students will be able to:</p> <ul style="list-style-type: none"> *Graph inequalities on the number line *Solve linear inequalities | problems 296-337 |
| 1 | 2.7 Solve Absolute Value Inequalities | <p>By the end of this section, students will be able to:</p> <ul style="list-style-type: none"> *Solve absolute value equations *Solve absolute value inequalities with “less than” | all |
| 1 | Review Chapter 2 | | problems 568-582, 593-603, 606-620, 625-643 |
| 1 | Quiz #1 | | |
| 1 | <p>Chapter 5: Polynomials and Polynomial Functions</p> <p>5.1 Add and Subtract Polynomials</p> | <p>By the end of this section, students will be able to:</p> <ul style="list-style-type: none"> *Determine the degree of polynomials *Add and subtract polynomials *Evaluate a polynomial function for a given value | problems 1-66 |

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| 1 | 5.2 Properties of Exponents and Scientific Notation | <p>By the end of this section, students will be able to:</p> <ul style="list-style-type: none"> *Simplify expressions using the properties for exponents *Use the definition of a negative exponent | problems 81-161 |
| 1 | 5.3 Multiply Polynomials | <p>By the end of this section, students will be able to:</p> <ul style="list-style-type: none"> *Multiply monomials *Multiply a polynomial by a monomial *Multiply a binomial by a binomial *Multiply a polynomial by a polynomial *Multiply special products | problems 178-277 |
| 2 | 5.4 Dividing Polynomials | <p>By the end of this section, students will be able to:</p> <ul style="list-style-type: none"> *Dividing monomials *Dividing a polynomial by a monomial *Dividing polynomials using long division *Dividing polynomials using synthetic division | problems 288-323 |
| 1 | Review Chapter 5 | | problems 342-364, 371-419, 430-480 |
| 1 | Quiz #2 | | p.564: problems 487-580 |

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| 1 | <p>Chapter 6: Factoring</p> <p>6.1 Greatest Common Factor and Factor by Grouping</p> | <p>By the end of this section, students will be able to:</p> <ul style="list-style-type: none"> *Find the greatest common factor of two or more expressions *Factor the greatest common factor from a polynomial *Factor by grouping | problems 1-56 |
| 1 | 6.2 Factor Trinomials | <p>By the end of this section, students will be able to:</p> <ul style="list-style-type: none"> *Factor trinomials of the form $x^2 + bx + c$ *Factor trinomials of the form $ax^2 + bx + c$ using trial and error *Factor trinomials of the form $ax^2 + bx + c$ using the 'ac' method | problems 61-150 |
| 1 | <p>6.3 Factor Special Products</p> <p>6.4 General Strategy for Factoring Polynomials</p> | <p>By the end of this section, students will be able to:</p> <ul style="list-style-type: none"> *Factor perfect square trinomials *Factor differences of squares *Factor sums and differences of cubes <p>By the end of this section, students will be able to:</p> <ul style="list-style-type: none"> *Recognize and use the appropriate method to factor a polynomial completely | <p>problems 159-228</p> <p>all</p> |
| 1 1 | <p>Review Chapter 6</p> <p>Quiz #3</p> | | <p>problems 337-436</p> <p>problems 445-458</p> |

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| <p>1</p> <p>1</p> | <p>Review I - Chapters 2, 5 & 6</p> <p>EXAM I</p> | | |
| <p>2</p> | <p>Chapter 7: Rational Expressions and Functions</p> <p>7.1 Multiply and Divide Rational Expressions</p> | <p>By the end of this section, students will be able to:</p> <ul style="list-style-type: none"> *Determine the values for which a rational expression is undefined *Simplify rational expressions *Multiply rational expressions *Divide rational expressions | <p>p.651-653: problems 1-58</p> |
| <p>2</p> | <p>7.2 Add and Subtract Rational Expressions</p> | <p>By the end of this section, students will be able to:</p> <ul style="list-style-type: none"> *Add and subtract rational expressions with a common denominator *Add and subtract rational expressions whose denominators are opposites *Find the least common denominator of rational expressions *Add and subtract rational expressions with unlike denominators *Add and subtract rational functions | <p>p.667-668: problems 75-142</p> |

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| 1 | 7.3 Simplify Complex Rational Expressions | <p>By the end of this section, students will be able to:</p> <ul style="list-style-type: none"> *Simplify a complex rational expression by writing it as division *Simplify a complex rational expression by using the LCD | p.680-681: problems 151-194 |
| 1 | 7.4 Solve Rational Equations | <p>By the end of this section, students will be able to:</p> <ul style="list-style-type: none"> *Solve rational equations *Solve a rational equation for a specific variable | <p>p.694: problems 197-226</p> <p>p.695: problems 235-250</p> |
| 1 | 7.5 Solve Applications with Rational Equations | <p>By the end of this section, students will be able to:</p> <ul style="list-style-type: none"> *Solve proportions | p.714: problems 253-262 |
| 1 | <p>Review Chapter 7</p> <p>Quiz #4</p> | | <p>p.734-736: problems 377-422;</p> <p>p.737-738: problems 427-440, 443-452</p> <p>p.741: problems 483-494</p> |

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| <p style="text-align: center;">1</p> | <p>Chapter 8: Roots and Radicals</p> <p>8.1 Simplify Expressions with Roots</p> | <p>By the end of this section, students will be able to:</p> <ul style="list-style-type: none"> *Simplify expressions with roots *Estimate and approximate roots *Simplify variable expressions with roots | <p>p.755-756: problems 1-50</p> |
| <p style="text-align: center;">2</p> | <p>8.2 Simplify Radical Expressions</p> | <p>By the end of this section, students will be able to:</p> <ul style="list-style-type: none"> *Use the Product Property to simplify radical expressions *Use the Quotient Property to simplify radical expressions | <p>p.771-773: problems 55-114</p> |
| <p style="text-align: center;">1</p> | <p>8.3 Simplify Rational Exponents</p> | <p>By the end of this section, students will be able to:</p> <ul style="list-style-type: none"> *Simplify expressions with $a^{1/n}$ *Simplify expressions with $a^{m/n}$ *Use the properties of exponents to simplify expressions with rational exponents | <p>p.786-788: problems 119-158</p> |
| <p style="text-align: center;">1</p> | <p>8.4 Add, Subtract, and Multiply Radical Expressions</p> | <p>By the end of this section, students will be able to:</p> <ul style="list-style-type: none"> *Add and subtract radical expressions *Multiply radical expressions *Use polynomial multiplication to multiply radical expressions | <p>p.797-798: problems 165-214</p> |

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| 1 | 8.5 Divide Radical Expressions | <p>By the end of this section, students will be able to:</p> <ul style="list-style-type: none"> *Divide radical expressions *Rationalize a one term denominator *Rationalize a two term denominator | <p>p.810: problems 245-262</p> <p>p.811: problems 271-282</p> |
| 1 | Review Chapter 8 | | <p>p.851-854: problems 481-532 & 535-537</p> |
| 1 | Quiz #5 | | <p>p.857: problems 579-595</p> |
| 1 | Review II - Chapters 7 & 8 | | |
| 1 | EXAM II | | |
| 1 | 6.5 Polynomial Equations | <p>By the end of this section, students will be able to:</p> <ul style="list-style-type: none"> *Use the Zero Product Property *Solve quadratic equations by factoring | <p>p.627: problems 277-312</p> |

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| 3 | <p>Chapter 9: Quadratic Equations and Functions</p> <p>9.1 Solve Quadratic Equations Using the Square Root Property</p> | <p>By the end of this section, students will be able to:</p> <ul style="list-style-type: none"> *Solve quadratic equations of the form $ax^2 = k$ using the Square Root Property *Solve quadratic equations of the form $a(x - h)^2 = k$ using the Square Root Property | <p>p.869-870: problems 1-68</p> |
| 1 | <p>2.3 Solve a Formula for a Specific Variable</p> | <ul style="list-style-type: none"> *Use Pythagorean Theorem | <p>p.145: problems 203-206</p> |
| 2 | <p>9.2 Solve Quadratic Equations by Completing the Square</p> | <p>By the end of this section, students will be able to:</p> <ul style="list-style-type: none"> *Complete the square of a binomial expression *Solve quadratic equations of the form $x^2 + bx + c = 0$ by completing the square *Solve quadratic equations of the form $ax^2 + bx + c = 0$ by completing the square | <p>p.885: problems 71-110</p> |
| 1 | <p>9.3 Solve Quadratic Equations Using the Quadratic Formula</p> | <p>By the end of this section, students will be able to:</p> <ul style="list-style-type: none"> *Solve quadratic equations using the Quadratic Formula | <p>p.898-899: problems 113-153</p> |

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| | | <p>*Use the discriminant to predict the number and type of solutions of a quadratic equation</p> <p>*Identify the most appropriate method to use to solve a quadratic equation</p> | |
| 2 | Review Chapter 9 | | p.982-983: problems 395-454 |
| 1 | Quiz #6 | | p.988: problems 529-535 |
| 2 | <p>Chapter 3: Graphs and Functions</p> <p>Lab:</p> <p>3.1 Graph Linear Equations in Two Variables</p> | <p>By the end of this section, students will be able to:</p> <ul style="list-style-type: none"> *Plot points in a rectangular coordinate system *Graph a linear equation by plotting points *Graph vertical and horizontal lines *Find the x- and y-intercepts *Graph a line using the intercepts | p.250-253: all |
| 2 | 3.2 Slope of a Line | <p>By the end of this section, students will be able to:</p> <ul style="list-style-type: none"> *Find the slope of a line *Graph a line given a point and the slope *Graph a line using its slope and intercept *Choose the most convenient method to graph a line | p.274-278: all |

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| | | <p>*Graph and interpret applications of slope–intercept</p> <p>*Use slopes to identify parallel and perpendicular lines</p> | |
| 2 | 3.3 Find the Equation of a Line | <p>By the end of this section, students will be able to:</p> <p>*Find an equation of the line given the slope and y-intercept</p> <p>*Find an equation of the line given the slope and a point</p> <p>*Find an equation of the line given two points</p> <p>*Find an equation of a line parallel to a given line</p> <p>*Find an equation of a line perpendicular to a given line</p> | p.291-294: all |
| 1 1 | <p>Review Chapter 3</p> <p>Quiz #7</p> | | p.353-358: problems 391-447 odd, & 450-477 |
| 2 | <p>Chapter 11: Conics</p> <p>Lab: 11.1 Distance and Midpoint Formulas; Circles</p> | <p>By the end of this section, students will be able to:</p> <p>*Use the Distance Formula</p> <p>*Use the Midpoint Formula</p> <p>*Write the equation of a circle in standard form</p> | p.1082-1083: problems 1-48 |

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| | | *Graph a circle | |
| 1 | Review Chapter 11 | | p.1155-1156: problems 244-263 |
| 1 | Quiz #8 | | p.1160: problems 327-331 |
| 2 | Chapter 4: Systems of Linear Equations 4.1 Solve Systems of Linear Equations with Two Variables | By the end of this section, students will be able to: *Determine whether an ordered pair is a solution of a system of equations *Solve a system of linear equations by graphing *Solve a system of equations by substitution *Solve a system of equations by elimination *Choose the most convenient method to solve a system of linear equations | p.385-387: problems 1-67 |

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| 1 | Review Chapter 4 | | p.479: problems 328-348 p.485: problems 407-410 |
| 1 | Quiz #9 | | |
| 2 | FINAL EXAM REVIEW | | |