



Exercises

Week	Khan Academy Unit	Khan Academy Exercises
1	Forms of Linear Equations	1. Slope-intercept intro 2. Linear equations word problems 3. Slope-intercept equation from graph 4. Slope-intercept from two points 5. Writing linear equations word problems
2	Quadratics: Multiplying & Factoring	6. Polynomials intro 7. Multiply monomials by polynomials (basic): area model 8. Multiply binomials: area model 9. Multiply difference of squares 10. Multiply perfect squares of binomials 11. Factoring quadratics with a common factor 12. Factor quadratics by grouping 13. Difference of squares 14. Perfect squares
3	Quadratic Functions & Equations	15. Parabolas intro 16. Interpret parabolas in context 17. Interpret a quadratic graph 18. Zero product property 19. Graph quadratics in factored form 20. Quadratic word problems (factored form)
4		21. Quadratics by taking square roots 22. Quadratic word problems (vertex form) 23. Quadratics by factoring 24. Quadratic formula 25. Quadratic word problems (standard form) 26. Features of quadratic functions: strategy
5	Rational Functions	27. Reduce rational expressions to lowest terms 28. Rational functions: zeros, asymptotes, and undefined points 29. Graphs of rational functions
6		30. Multiply & divide rational expressions 31. Add & subtract rational expressions 32. Rational equations
7	Equations	33. Square-root equations 34. Quadratic systems 35. Solving equations graphically: intro 36. Solving equations graphically: graphing calculator 37. Solving equations graphically: word problems
8	Exponents &	38. Multiply & divide powers (integer exponents) 39. Powers of products & quotients (integer exponents)

	Radicals	40. Properties of exponents challenge (integer exponents) 41. Simplify square roots 42. Simplify square roots (variables) 43. Simplify square-root expressions
9	Exponential Growth & Decay	44. Exponential vs. linear growth 45. Exponential expressions word problems (numerical) 46. Exponential expressions word problems (algebraic) 47. Interpret exponential expressions word problems 48. Graphing exponential growth & decay 49. Writing functions with exponential decay 50. Connecting exponential graphs with contexts 51. Linear vs. exponential growth: from data
10	Composite & Inverse Functions	52. Find composite functions 53. Verify inverse functions
11	Logarithms	54. Relationship between exponentials & logarithms 55. Use the properties of logarithms 56. Exponential model word problems
12	Trigonometric Functions	57. Unit Circle 58. Radians & degrees 59. Unit circle (with radians) 60. Use the Pythagorean identity
13		61. Midline of sinusoidal functions from graph 62. Amplitude of sinusoidal functions from graph 63. Period of sinusoidal functions from graph 64. Amplitude of sinusoidal functions from equation 65. Midline of sinusoidal functions from equation 66. Period of sinusoidal functions from equation
14		67. Interpreting trigonometric graphs in context 68. Modeling with sinusoidal functions 69. Modeling with sinusoidal functions: phase shift
15	Trigonometric Equations	70. Solve sinusoidal equations 71. Interpret solutions of trigonometric equations in context 72. Sinusoidal models word problems
16	Complex Numbers	73. Plot numbers on the complex plane 74. Modulus of complex numbers 75. Angle of complex numbers 76. Complex plane and polar form 77. Multiply & divide complex numbers in polar form 78. Powers of complex numbers

17	Final Review
18	Final Exam