

Topics Covered

Chapter 1

- Solving linear equations and inequalities
- Functions (domain, range, combinations of functions)
- Linear functions
- Solving systems of linear equations (elimination, substitution)
- Marginal cost, break-even point

Chapter 2

- Solving quadratic equations (factoring, quadratic formula)
- Quadratic functions (graphing, vertex)
- Market equilibrium
- Rational functions (horizontal and vertical asymptotes), piecewise defined functions
- Inverse functions

Chapter 3

- Matrices (finding entries, adding, subtracting, multiplication by a constant)
- Matrix multiplication
- Solving systems of linear equations by reducing matrices
- Inverse matrices

Chapter 4

- Solving systems of linear inequalities (graphing, finding corners)
- Maximizing and minimizing an objective function subject to conditions given by a system of linear inequalities

Chapter 5

- Exponential functions (graphing, evaluating)
- Logarithmic functions (graphing, evaluating, properties)
- Solving exponential and logarithmic equations

Chapter 6

- Simple interest
- Compound interest (periodic and continuous compounding, APY)
- Future values of annuities (ordinary annuities and annuities due)
- Present values of annuities (ordinary annuities and annuities due)
- Amortizing loans