

MATH 130/137 PREREQUISITE SKILLS

POLYNOMIAL AND RATIONAL EXPRESSIONS

1. Factor polynomial expressions
2. Complete the square
3. Add, subtract, and multiply polynomial expressions
4. Add, subtract, multiply, and divide rational expressions
5. Solve polynomial equations
6. Solve rational equations
7. Solve application problems involving the above mentioned equations

EXPONENTS AND RADICALS

1. Simplify expressions with rational exponents using laws of exponents
2. Find n th roots of numbers
3. Simplify radical expressions containing variable terms
4. Add, subtract, multiply, and divide radical expressions
5. Solve radical equations
6. Solve application problems involving the above mentioned equations

EXPONENTIAL EQUATIONS AND LOGARITHMS

1. Write exponential statements as equivalent logarithmic statements, and vice versa
2. Simplify expressions using laws of logarithms
3. Solve exponential equations
4. Solve application problems involving the above mentioned equations

GENERAL FUNCTIONS

1. Apply the vertical line test to determine if a graph is that of a function
2. Find the domain and range of a function from a graph
3. Find the domain of a function from its equation
4. Evaluate functions
5. Add, subtract, multiply, and divide functions
6. Given two functions, find their composite function and its domain
7. Given a one-to-one function, graph its inverse
8. Find the inverse of a function algebraically
9. Given the graph of a function, identify intervals of increase and decrease
10. Given the graph of a function, locate local extrema

SYSTEMS OF EQUATIONS

1. Solve 3×3 linear systems algebraically
2. Solve non-linear systems graphically and algebraically
3. Solve application problems involving systems of equations

GRAPHING CALCULATOR

Provide complete graphs of functions on the graphing calculator