

## MATH 107/111 PREREQUISITE SKILLS

### **LINEAR EXPRESSIONS**

1. Graph a line from its equation
2. Find the equation of a line from two points
3. Solve any single-variable 1<sup>st</sup>-degree equation
4. Graph an inequality of the form  $x < a$ ,  $x > a$ ,  $x \leq a$ , or  $x \geq a$
5. Solve a system of two linear equations in two variables algebraically

### **POLYNOMIALS**

1. Identify terms and their numerical coefficients in polynomials
2. Perform polynomial operations of addition, subtraction or multiplication
3. Factor out common factors in polynomials
4. Factor single-variable quadratic polynomials

### **RATIONAL EXPRESSIONS**

1. Find a common denominator for rational expression with denominators of degree  $\leq 2$ .
2. Transform a rational expression into an equivalent rational expression (either “lower or higher terms”)
3. Add or subtract rational expression with the same denominator

### **EXPONENTS AND RADICALS**

1. Simplify expressions containing only whole number exponents
2. Simplify basic expressions containing negative integer exponents
3. Estimate square roots of who numbers

### **QUADRATICS**

Solve single-variable quadratic equations exactly (solution does not have to be simplified)

### **WORD PROBLEMS**

Translate verbal statements into algebraic statements