

Math 105 Topics for Test 1

Next to each topic are problems from the **Chapter 1 Test on page 135** of the Textbook. Also study the homework problems. A complete list of the homework problems is on the course webpage.

- Use the rules of exponents to simplify exponent expressions (**Problem 2a-f, 4b, 4c**)
- Simplify radical expressions
 - Rationalize the denominator (or numerator) of an expression (**Problem 5**)
 - Combine radicals (**Problem 4a**)
- Polynomials
 - Add, Subtract, Multiply (**Problem 6a-f**)
 - Factor (**Problem 7a-d, f**)
- Factor expressions with fractional exponents (**Problem 7e**)
- Rational Expressions – Reduce, Add/subtract, Multiply/divide (**Problem 4d, e, f**)
- Solving Equations
 - Linear Equations (**Problem 8a**)
 - Quadratic Equations (**Problem 8c, d**) -Know how to use all three methods: Factoring, Completing the square, and Quadratic Formula)
 - Other non-linear equations (**Problem 8b,e**)
- Inequalities – Linear and non-linear. Know how to graph the solution and write it in interval notation (**Problem 11a, b, d**)