

MAC 1147 STUDY GUIDE FOR TEST 1

- 1.) Simplify and/or factor expressions using rules of exponents and radicals. (Reference: Exercises 71, 73, 77, 78, 89, 90 on page 78.)
- 2.) Solve an equation that leads to linear equation. (Reference: Exercises 49, 50, 59 on page 95.)
- 3.) Solve a quadratic equation; you should know all three cases: two real roots, one real root and two complex roots. (Reference: Exercises 51, 53, 61, 67 on page 107; Exercises 53, 59, 65, 73 on page 117.)
- 4.) Perform operations on complex numbers. (Reference: Exercises 19, 27, 28, 31, 33 on page 117).
- 5.) Solve a polynomial equation by factoring. (Reference: Exercises 77, 79, 81, 82, 85 on page 123.)
- 6.) Solve a linear inequality. (Reference: Exercises 73, 75, 76 on page 133.)
- 7.) Write the equation of a line. (Reference: Exercises 17, 23, 45, 51, 65 on page 185.)
- 8.) Write an equation of the circle with a given radius and center. Find the x and y intercepts of the circle. (Reference: Exercises 13, 23 on page 193.)
- 9.) Various questions about functions: find the domain, determine the output for a given input, determine the input(s) for a given output. (Reference: Example 3 on pages 225–226; Exercises 51, 53, 55, 57 on page 220; Exercise 25 on page 228.)