MAC1105 College Algebra
Mid Term Examination Topic Outline

1. Solving linear, rational, polynomial, and radical equations
2. Simplify expressions involving complex numbers
3. Solving quadratic equations by factoring, completing the square, square root property, and quadratic formula
4. Using the discriminant to determine the types of solutions of a given quadratic equation
5. Solving formula for specified variable
6. Solving linear, compound, and absolute value equations
7. Solve applications relating to any of the above types of equations

8. Identify relations & functions
9. Determine domain & range of a given functions
10. Find the slope given two points, a line parallel or perpendicular
11. Find the average rate of change given a functions and two points
12. Find and simplify the difference quotient for a given function
13. Find the equation of a line given two points, a point & a slope, a point and a line parallel or perpendicular to the requested line
14. Write linear equations as linear functions
15. Identify the base function and any/all transformations done from a given transformed function
16. Construct a transformed function given a base function and requested transformations
17. Sketch a transformed graph given a sketch by applying given transformations
18. Sketch a piece-wise defined function
19. Determine if a function is even, odd, or neither
20. Determine if a function is symmetric to the x-axis, y-axis, or origin
21. Apply and simplify Algebraic Function operations
22. Find the domain of functions including modifications from simplifying algebraic operations
23. Find the composition of algebraic
24. Find the domain of a composed function
25. Find the decomposition of algebraic functions
26. Find the Cost, Revenue, and Profit functions using provided information to construct requested functions
27. Solve applications relating to any of the above

Chapter Review questions

p. 160   ch. 1   1 – 98, *eoo

p. 278   ch. 2   19 – 121, *eoo

Chapter Test questions

p. 163 ch. 1   1 – 43 odd

p. 282 ch. 2   4 – 29 odd

And study your Take Home Tests & on-line quizzes (and at least study the assigned Portfolio questions from the chapter review)