



Need – to – Know Skills MAT1033 →→→ MAC1105

MAT1033 – These are the exit skills you must demonstrate upon completing the course.

MAC1105 – These are the entrance skills you must have upon entering the course.

1. Reduce rational expressions (fractions)
2. Add, subtract, multiply, and divide rational expressions (fractions)
3. Factor, including the difference of 2 squares, and the sum/difference of 2 cubes
4. Recognize and correctly use function notation
5. Evaluate a function, and perform operations (add, subtract, multiply, and divide) on functions
6. Determine if a given relation is a function
7. State the domain and range of a function
8. Write and graph linear equations using knowledge of slope, point-slope, and slope-intercept forms
9. Graph a quadratic function, using knowledge of the vertex, axis of symmetry, and x & y intercepts
10. Solve linear, rational, and quadratic equations
11. Solve radical and absolute value equations
12. Solve and graph linear and absolute value equations
13. Use interval and set builder notation
14. Solve 2X2 systems of equations
15. Use the properties of exponents to simplify radical, and perform operations (add, subtract, multiply, and divide) on radical expressions
16. Solve radical equations
17. Rationalize denominators
18. Recognize the algebra of complex numbers and perform the operations (add, subtract, multiply, and divide), and present an answer in standard form ($a + bi$)
19. Solve quadratic equations by factoring, completing the square, and/or square root property
20. Solve applications (word problems) from all of the above