

## EXAM 1 OBJECTIVES - MATH 101

The students should be able to:

1. Use the distance formula to find both exact and approximate values when given the coordinates of two points.
2. Use the midpoint formula relationship to find the coordinates of the midpoint for two given points.
3. Find the coordinates of points at a given distance from a given point.
4. Graph equations by finding intercepts and plotting points.
5. Find the missing coordinate to fit the graph of a given equation when given the  $x$  or  $y$  coordinate.
6. Graph a line given the slope and a point.
7. Write the equation of a line parallel or perpendicular to a given line.
8. Identify the slope and intercepts of a line from the graph or given equation.
9. Given the general form of the equation of a circle, use the technique of completing the square to find the center and radius.
10. Graph a circle.
11. Complete a graph to show x-axis, y-axis, or origin symmetry.
12. Solve a system of linear equations by substitution, elimination or matrix row operations.
13. Use systems of linear equations to solve application problems.
14. Write the augmented matrix for system of linear equations.
15. Write the system of linear equations depicted by an augmented matrix.