Math 110 (Section 002) Learning Objectives

Students should be able to do the following things by the end of each respective unit. Additions may be made as the term progresses.

Lines and Distances

1. Write down the equation of a line in the form $y - y_0 = m(x - x_0)$ given two points, a point and the slope or a graph.

2. Sketch a line given its equation in any form.

3. Determine if lines are perpendicular or parallel.

4. Explain, using a picture, the Pythagorean Theorem.

5. Find the distances between two points on the plane using the Pythagorean Theorem.

6. Write down the equation of a circle in the form $(x - x_0)^2 + (y - y_0)^2 = r^2$ given its radius and centre.

7. Sketch a circle given its equation in the form $(x - x_0)^2 + (y - y_0)^2 = r^2$.