ALGEBRA II
DR. PAUL L. BAILEY

Homework 0917
Friday, September 17, 2021

Name:

Due Monday, September 20, 2021. DO NOT USE A CALCULATOR.

Problem 1. Let $A = (3, 9)$ and $B = (5, 3)$.

(a) Find the slope of the line through A and B.

(b) Find the point-slope form of the equation of the line through A and B.

(c) Find the slope-intercept form of the equation of the line through A and B.

(d) Find the distance from A to B.

(e) Find the equation of the circle centered at A and passing through B.

(f) Find the equation of the circle centered at B and passing through A.

Problem 2. Let $A = (4, -1)$ and $B = (-3, 11)$.

(a) Find the slope of the line through A and B.

(b) Find the point-slope form of the equation of the line through A and B.

(c) Find the slope-intercept form of the equation of the line through A and B.

Problem 3. Find the center and radius of the circle with equation

$$x^2 - 8x + y^2 + 4x = 3.$$