

Name: _____

MATH 101

Fall 2022

HW 17: Due 11/14

*“Geometry is not true, it is
advantageous.”*

–Henri Poincaré

Problem 1. (10pt) Explain why the lines $y = 2(2 - x)$ and $y = \frac{7}{3}x + 17$ intersect at the point $(-3, 10)$.

Problem 2. (10pt) Consider the following lines:

$$\ell_1 : y = \frac{2}{3}x + 3$$

$$\ell_2 : y = 14 - 3x$$

Explain why these lines intersect and find their point of intersection.

Problem 3. (10pt) Find the point of intersection between the following lines:

$$\ell_1 : y = 4x - 13$$

$$\ell_2 : 5x + 4y = -10$$