

Name: \_\_\_\_\_

MATH 101

Spring 2022

HW 10: Due 04/12

*“Algebra is the metaphysics of  
arithmetic.”*

*–John Ray*

**Problem 1.** (10pt) Use completing the square to solve the following equation:

$$x(2x + 7) = 15$$

**Problem 2.** (10pt) Use factoring to solve the following equation:

$$2x = 80 - x^2$$

**Problem 3.** (10pt) Use the quadratic equation to solve the following equation:

$$2x^2 - 1 = 2x$$

**Problem 4.** (10pt) Use the quadratic formula to factor  $280x^2 + 6x - 315$ .