Name: _____

MATH 101
Fall 2021
HW 11: Due 11/05

"Every brilliant experiment, like every great work of art, starts with an act of imagination."

–Jonah Lehrer

Problem 1. (10pt) Solve the equation $x^2 + 4x = 32$ by completing the square. Show all your work.

Problem 2. (10pt) Solve the equation $3 - 2x^2 = 5x$ by completing the square. Show all your work.

Problem 3. (10pt) Solve the equation $x^2 + 4x = 5$ by factoring. Show all your work.

Problem 4. (10pt) Solve the equation $x^2 + 16 = 8x$ by factoring. Show all your work.

Problem 5. (10pt) Solve the equation $x^2 = x + 72$ by using the quadratic formula. Show all your work.

Problem 6. (10pt) Solve the equation $x^2 - 4x + 1 = 0$ by using the quadratic formula. Show all your work.