Name: _____

MATH 101
Fall 2021
HW 12: Due 11/05

"Science and everyday life cannot and should not be separated."
−Rosalind Franklin

Problem 1. (10pt) Use the quadratic formula to factor $x^2 - 6x - 3$. Show all your work.

Problem 2. (10pt) Use the quadratic formula to factor $x^2 - 6x + 10$. Show all your work.

Problem 3. (10pt) Use the quadratic formula to factor $4x^2 - 8x + 3$. Show all your work.

Problem 4. (10pt) Find the x-intercepts of the quadratic function $y = x^2 - 11x + 30$. Show all your work.

Problem 5. (10pt) Find the x-intercepts of the quadratic function $y = x^2 - 6x + 9$. Show all your work.

Problem 6. (10pt) Find the x-intercepts of the quadratic function $y = 5x^2 - 19x + 12$. Show all your work.

Problem 7. (10pt) Plot the function $y = x^2 + 2x - 3$. Your plot should include the vertex, axis of symmetry, y-intercept, and x-intercepts. Show all your work.