

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

MATH 101

Spring 2024

HW 17: Due 04/15

*"I can talk to animals. Well, not talk to them;  
I can take commands from them."*

— *Kenneth Parcell, 30 Rock*

**Problem 1.** (10pts) Complete the square in  $x^2 + 8x + 6$  to find the vertex form of this quadratic function.

**Problem 2.** (10pts) Use the ‘evaluation method’ to find the vertex form of the quadratic function  $2x^2 + 12x - 14$ .

**Problem 3.** (10pts) Use completing the square to solve the following quadratic equation:

$$x(x - 6) = 7$$

**Problem 4.** (10pts) Use the quadratic formula to solve the following quadratic equation:

$$x(5 - x) = 3$$