Name: _____

Chapter 3 – Section 3.1 Introduction to the Family of Quadratic Functions

TICKET-IN-THE-DOOR

In order to be prepared for class you must watch the module and complete the following activity. This is due first thing when you get to class.

Write the two **general forms** for quadratic function:

- *Standard* Form

- *Factored* form

What is the equation for the **quadratic formula**?

1. Find the **zeros** to the following quadratic function $Q(r) = 5r - 6 + r^2$.

2. The height of an object above the ground is described by the function $f(t) = 2.7t^2 - 13t + 5$.
   a. What is the **initial height** of the object at time $t = 0$? (Write your answer using function notation. That is, clearly show an input and an output)

   b. **When** does the object have height 3? (Show all your work!)

3. **Construct a quadratic** equation f with zeros at $x = 4$ and $x = -3$ such that $f(1) = 24$. (Show all your steps!)