Name: _____     Date: _____

# Chapter 6 Problem Wrap-Up Rubric

| Category | Level 1 | Level 2 | Level 3 | Level 4 |
|---|---|---|---|---|
| **Knowledge/ Understanding** | • demonstrates limited knowledge of use of different methods for manipulating quadratic expressions and finding the coordinates of the vertex | • demonstrates some knowledge of use of different methods for manipulating quadratic expressions and finding the coordinates of the vertex | • demonstrates considerable knowledge of different methods for manipulating quadratic expressions and finding the coordinates of the vertex (e.g., substituting for values of $x$ and $y$ to find coordinates, completing the square) | • demonstrates thorough knowledge of use of different methods for manipulating quadratic expressions and finding the coordinates of the vertex (e.g., substituting for values of $x$ and $y$ to find coordinates, completing the square) |
| **Thinking** | • uses planning and critical thinking processes with limited effectiveness (e.g., little evidence of reasoning skills) | • uses planning and critical thinking processes with some effectiveness (e.g., some evidence of reasoning skills) | • uses planning and critical thinking processes with considerable effectiveness (e.g., considerable evidence of reasoning skills) | • uses planning and critical thinking processes very effectively (e.g., detailed evidence of reasoning skills) |
| **Communication** | • expresses and organizes mathematical thinking with limited effectiveness<br>• uses mathematical vocabulary and notation with limited effectiveness | • expresses and organizes mathematical thinking with some effectiveness<br>• uses mathematical vocabulary and notation with some effectiveness | • expresses and organizes mathematical thinking with considerable effectiveness<br>• uses mathematical vocabulary and notation with considerable effectiveness (e.g., uses good form for presenting solutions) | • expresses and organizes mathematical thinking with a high degree of effectiveness<br>• uses mathematical vocabulary and notation with a high degree of effectiveness (e.g., uses very good form for presenting solutions) |
| **Application** | • applies knowledge of analytic geometry of quadratic relations and circle properties with limited effectiveness | • applies knowledge of analytic geometry of quadratic relations and circle properties with some effectiveness | • applies knowledge of analytic geometry of quadratic relations and circle properties with considerable effectiveness | • applies knowledge of analytic geometry of quadratic relations and circle properties with a high degree of effectiveness |