Name: _____   Date: _____

Chapter 4 Problem Wrap-Up Rubric

Category	Level 1	Level 2	Level 3	Level 4
Knowledge and Understanding • Demonstrates an understanding of quadratic relations and projectile motion.	Demonstrates limited understanding of quadratic relations and projectile motion. Makes major errors.	Demonstrates some understanding of quadratic relations and projectile motion. Makes minor errors.	Demonstrates considerable understanding of quadratic relations and projectile motion. Makes few minor errors.	Demonstrates a thorough understanding of quadratic relations and projectile motion. Makes very few or no errors.
Thinking • Prepares a plan to solve the problem. • Carries out the plan.	Needs extensive assistance to begin organizing a plan and needs clearly laid out steps to follow.	Needs some assistance to begin organizing a plan and needs some steps to follow.	Needs minimal assistance to organize and implement an effective strategy.	Needs no assistance to organize and implement an effective strategy.
Communication • Clear explanations and full justifications. • Correct use of mathematical language.	Does not clearly explain or justify solution. Uses mathematical language incorrectly.	Explains and justifies solution somewhat. Sometimes uses mathematical language incorrectly.	Explains and justifies solution fully. Uses mathematical language correctly.	Explains, justifies and shows insight into the complexities of the solution. Uses mathematical language correctly and fluently.
Application • Applies knowledge of quadratic relations to model the motion of a person or object.	Applies knowledge of quadratic relations ineffectively and has difficulty modelling the motion of a person or object.	Applies knowledge of quadratic relations somewhat effectively and has some difficulty modelling the motion of a person or object.	Applies knowledge of quadratic relations with considerable effectiveness and has little difficulty modelling the motion of a person or object.	Applies knowledge of quadratic relations with a high degree of effectiveness and has no difficulty modelling the motion of a person or object.