Name: _____ Date: _____

BLM 5–17

Task: Design a Soccer Field Rubric

Category	Level 1	Level 2	Level 3	Level 4
Knowledge and Understanding • Calculates the height of the penalty spot above the goal line, the distance from the sideline of the sprinkler head, and the maximum and minimum heights above the sideline along the centre circle.	Demonstrates limited understanding of quadratic relations and has major numerical errors in solution.	Demonstrates some understanding of quadratic relations and has minor numerical errors in solution.	Demonstrates considerable understanding of quadratic relations and has no numerical errors in solution.	Demonstrates thorough understanding of quadratic relations and has no numerical errors in solution.
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.	Explains and justifies solution somewhat.	Explains and justifies solution fully.	Explains, justifies and shows insight into the complexities of the solution.
Application • Writes quadratic relations to model the profiles of the width and length of the field.	Interprets the information ineffectively and has difficulty writing quadratic relations to model the profiles of the width and length of the field.	Interprets the information somewhat effectively and has some difficulty writing quadratic relations to model the profiles of the width and length of the field.	Interprets the information with considerable effectiveness and has little difficulty writing quadratic relations to model the profiles of the width and length of the field.	Interprets the information with a high degree of effectiveness and has no difficulty writing quadratic relations to model the profiles of the width and length of the field.