

Chapter 3 Practice Test Achievement Check Rubric

Categories	Level 1	Level 2	Level 3	Level 4
Knowledge and Understanding <ul style="list-style-type: none"> Writes the constraint equation and the equation for the area to be maximized. Determines the coordinates of the vertex of the quadratic function. 	Demonstrates limited understanding of the process of finding the optimum value for a quadratic function.	Demonstrates some understanding of the process of finding the optimum value for a quadratic function.	Demonstrates considerable understanding of the process of finding the optimum value for a quadratic function.	Demonstrates thorough understanding of the process of finding the optimum value for a quadratic function.
Thinking <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> Correct use of mathematical form. Clear explanations and full justifications. 	Makes many notational errors. Does not clearly explain or justify solution.	Makes few notational errors. Explains and justifies solution somewhat.	Makes no notational errors. Explains and justifies solution fully.	Makes no notational errors. Explains, justifies, and shows insight into the complexities of the solution.
Application <ul style="list-style-type: none"> Determines the maximum area and the dimensions of the garden. Recognizes that the areas of the three sections need not be equal. 	Interprets the information ineffectively, needing considerable assistance or makes many errors in identifying the solutions.	Interprets the information somewhat effectively, needing some assistance or makes a few errors in identifying the solutions.	Interprets the information with considerable effectiveness, needing little assistance and correctly identifies the solutions.	Interprets the information with a high degree of effectiveness, unassisted, and correctly identifies all of the solutions.