

Section 1.6 Achievement Check Rubric

Category	Level 1	Level 2	Level 3	Level 4
Knowledge and Understanding <ul style="list-style-type: none"> Set up an optimization problem algebraically. Determine the maximum value of a function graph. 	Demonstrates limited understanding of setting up an optimization problem and finding the maximum value of a function.	Demonstrates some understanding of setting up an optimization problem and finding the maximum value of a function.	Demonstrates considerable understanding of setting up an optimization problem and finding the maximum value of a function.	Demonstrates thorough understanding of setting up an optimization problem and finding the maximum value of a function.
Thinking <ul style="list-style-type: none"> Prepare a plan to solve the problem. Carry 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"> Clear explanations and full justifications. Correct use of mathematical conventions and language. 	Does not clearly explain or justify solution. Uses mathematical language and algebra correctly in some of the solution.	Explains and justifies solution somewhat. Uses mathematical language and algebra correctly throughout most of the solution.	Explains and justifies solution fully. Uses mathematical language and algebra correctly throughout the solution.	Explains, justifies, and shows insight into the complexities of the solution. Uses mathematical language and algebra correctly throughout the solution.
Application <ul style="list-style-type: none"> Optimize the volume of a square-based prism with a given surface area. Uses technology to find the maximum value of a function. 	Interprets the information ineffectively and has difficulty finding optimal solution.	Interprets the information somewhat effectively and has difficulty finding optimal solution.	Interprets the information with considerable effectiveness and has little difficulty finding optimal solution.	Interprets the information with a high degree of effectiveness and has no difficulty finding optimal solution.

