

CHAPTER 7: RUBRIC FOR CHALLENGE 2

Assessment Category	Scores and Criteria			
	Passable level of achievement – below provincial standard LEVEL 1	Moderate level of achievement – below, but approaching provincial standard LEVEL 2	High level of achievement – at provincial standard LEVEL 3	Very high to outstanding level of achievement – above provincial standard LEVEL 4
Knowledge and Understanding				
Performance of an algorithm by hand, mentally, or using technology	Some steps of using points to determine the equation are performed but may contain inaccuracies.	Most steps of using points to determine the equation are performed but may contain inaccuracies.	Steps for using points to determine the equation are performed completely; most computations generally correct.	Steps for using points to determine the equation are performed completely and accurately and are verified or supported.
Thinking, Inquiry, Problem Solving				
Formulation and defense of hypothesis/conjecture	A conjecture is created, but links between a picture and the properties of the conic are insufficient.	A conjecture is created but the connections between a picture and the properties of the conic are weak.	A conjecture is created and the connections between a picture and the properties of the conic are identified.	A clear conjecture makes strong connections between a picture and the properties of the conic.
Creation of a model (algebraic, graphical, geometric, physical, technological) to solve a problem	A model was created and tested with insufficient data.	A model was created and tested with some data.	A model was created and tested with sufficient data.	An appropriate model was created that integrates all aspects of the data and is verified.
Justification of reasoning and/or conclusion	Exploration of the problem and reasoning are evident but lack consistency.	Exploration of the problem and reasoning are evident and logical in parts of the problem.	Exploration of the problem and reasoning are evident, logical, and consistent within context.	Exploration of the problem and reasoning are logical and consistent, and explore all aspects of the problem.
Making conclusions and inferences	Conclusions are somewhat connected with work but are not supported.	Conclusions are consistent with work but are not fully supported.	Conclusions are supported by evidence and integrate aspects of the problem.	Conclusions are supported, integrate all aspects of the problem, and are convincing.
Communication				
Correct use of mathematical symbols, labels, and conventions	Student uses few mathematical conventions.	Student uses some mathematical conventions correctly.	Student uses most mathematical conventions correctly.	Student uses mathematical conventions correctly.
Integration of narrative and mathematical forms (graphs, charts, diagrams)	Poster displays little relevant information to support model.	Poster displays some relevant information to support model.	Poster displays information to clearly support model.	Poster makes strong, convincing connections between picture and model.
Degree of clarity in explanations and justifications	Explanations and justifications lack clarity.	Explanations and justifications are understandable but lack clarity.	Explanations and justifications are clear.	Explanations and justifications are clear and thorough.