

CHAPTER 6: RUBRIC FOR CHALLENGE 1

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				
Demonstration of understanding of a concept	Attempted solution demonstrates limited understanding of concepts (application of Pythagorean theorem, sum of angles in a triangle, cosine law).	Solution demonstrates some evidence of understanding of concepts.	Solution demonstrates sufficient evidence to show understanding of concepts.	Detailed solution demonstrates thorough understanding of concepts.
Performance of an algorithm by hand, mentally, or using technology	Some of algorithm performed but may contain inaccuracies.	Most of algorithm performed but may contain inaccuracies.	Algorithm performed completely; most computations generally correct.	Algorithm performed completely, accurately, and verified or supported.
Thinking, Inquiry, Problem Solving				
Selection and sequencing of a variety of tools and strategies to solve a problem	The student selects a few appropriate tools and uses these to make a limited attempt to solve the problem.	The student selects some appropriate tools and uses these to solve some of the problem.	The student chooses appropriate tools and uses these to solve most of the problem.	The student chooses and uses appropriate tools to execute a plan to solve the problem and verify the solution.
Justification of reasoning and/or conclusion	Reasoning is evident but lacks consistency.	Reasoning is evident and logical in parts of the problem.	Reasoning is logical and consistent within the context of average monthly temperature and periodic functions.	Reasoning is logical and consistent, and description is detailed.
Creation of a model (algebraic, geometric, physical) to solve a problem	Student uses a model/plan that addresses few aspects of the problem.	Student uses a model/plan that addresses some aspects of the problem.	Student uses an appropriate plan.	Student uses an appropriate plan that integrates all aspects of the problem/context.
Communication				
Correct use of mathematical symbols, labels, and conventions	The student uses few mathematical conventions.	The student correctly uses some mathematical conventions.	The student correctly uses most mathematical conventions.	The student correctly uses mathematical conventions.
Integration of narrative and mathematical forms (graphs, charts, and diagrams)	Either mathematical or narrative form is present, but not both.	Both mathematical and narrative forms are present, but not integrated.	Mathematical and narrative forms are present and integrated.	A variety of mathematical forms and narrative are present, integrated, and well chosen.
Appropriate use of mathematical vocabulary	Few mathematical words are used correctly.	Some mathematical words are used correctly.	Most mathematical words are used correctly.	Mathematical words are used correctly.
Degree of clarity in explanations and justifications	Explanations and justifications are unclear.	Explanations and justifications are understandable but unclear.	Explanations and justifications are clear.	Explanations and justifications are clear and thorough.
Application				
Selection of a tool or strategy to solve a problem	The selected tool selected is only partially appropriate to the context of question.	The selected tool is generally appropriate to the question.	The selected strategy is appropriate and relates to the context of the question.	The selected tool is appropriate and efficient and relates to the broadest context of the question.
Use of a selected tool or strategy	Selected tool or strategy is used with some inaccuracies.	Selected tool or strategy is used, but solution may contain minor errors.	Selected tool or strategy is used correctly.	Selected tool or strategy is used correctly and is verified or supported.