Name: _____   Date: _____

Chapter 4 Task: Pyramids and Angles of Elevation Rubric   BLM 4–16

Categories	Level 1	Level 2	Level 3	Level 4
Knowledge and Understanding • Finds the height of the pyramid and determines the angle of elevation • Predicts change in angle of elevation • Verifies prediction mathematically	• Demonstrates limited understanding of how to find the height of the pyramid and determine the angle of elevation • Demonstrates limited understanding of how the angle of elevation may change • Demonstrates limited mathematical verification of prediction	• Demonstrates some understanding of how to find the height of the pyramid and determine the angle of elevation • Demonstrates some understanding of how the angle of elevation may change • Demonstrates some mathematical verification of prediction	• Demonstrates considerable understanding of how to find the height of the pyramid and determine the angle of elevation • Demonstrates considerable understanding of how the angle of elevation may change • Demonstrates considerable mathematical verification of prediction	• Demonstrates thorough understanding of how to find the height of the pyramid and determine the angle of elevation • Demonstrates thorough understanding of how the angle of elevation may change • Demonstrates clear and thorough mathematical verification of prediction
Thinking • Prepares a plan to solve the problem • Carries out the plan	• Needs extensive assistance to begin organizing a plan, and needs some steps to follow	• Needs some assistance to organize and implement an effective strategy	• Needs minimal assistance to organize and implement an effective strategy	• Needs no assistance to organize and implement an effective strategy
Communication • Provides clear explanations and justifications • Correctly uses mathematical language • Clearly labels diagrams	• Does not clearly explain or justify solution • Uses limited mathematical form • Uses limited labelling on diagrams	• Explains or justifies the solution somewhat • Uses minimal mathematical form • Uses some labelling on diagrams	• Explains or justifies the solution fully • Uses good mathematical form • Diagrams are well-labelled	• Explains, justifies, and shows insight into the complexities of the solution • Uses excellent mathematical form • Diagrams are fully and clearly labelled
Application • Develops an algebraic model to calculate the angle of elevation of the apex from any point on the edge of the base • Explains reasoning for their prediction	• Is ineffective in developing an algebraic model to calculate the angle of elevation of the apex from any point on the edge of the base • Is ineffective in providing reasoning for their prediction	• Is somewhat effective and accurate in developing an algebraic model to calculate the angle of elevation of the apex from any point on the edge of the base • Is somewhat effective in providing reasoning for their prediction	• Develops an algebraic model to calculate the angle of elevation of the apex from any point on the edge of the base with considerable effectiveness and accuracy • Provides considerable reasoning for their prediction	• Develops an algebraic model to calculate the angle of elevation of the apex from any point on the edge of the base with thoroughness and a high degree of accuracy • Provides clear and thorough reasoning for their prediction