

Name: _____

Date: _____

Chapter 5 Problem Wrap-Up Rubric

BLM 5-12

| Categories | Level 1 | Level 2 | Level 3 | Level 4 |
|--|---|---|---|---|
| Knowledge and Understanding <ul style="list-style-type: none"> graphs the equations that model the roller coaster | <ul style="list-style-type: none"> demonstrates limited understanding of modeling with trigonometric functions, by producing an inadequate sketch | <ul style="list-style-type: none"> demonstrates some understanding of modeling with trigonometric functions, by producing an adequate sketch but without identifying the important points | <ul style="list-style-type: none"> demonstrates considerable understanding of modeling with trigonometric functions, by producing an accurate, fully labelled sketch | <ul style="list-style-type: none"> demonstrates thorough understanding of modeling with trigonometric functions, by producing an accurate, fully labelled sketch using technology |
| Thinking <ul style="list-style-type: none"> prepares a plan to solve the problem carries out the plan | <ul style="list-style-type: none"> needs extensive assistance to begin organizing a plan and needs clearly laid out steps to follow | <ul style="list-style-type: none"> needs some assistance to begin organizing a plan and needs some steps to follow | <ul style="list-style-type: none"> needs minimal assistance to organize and implement an effective strategy | <ul style="list-style-type: none"> needs no assistance to organize and implement an effective strategy |
| Communication <ul style="list-style-type: none"> correctly uses mathematical language clearly explains and fully justifies solution | <ul style="list-style-type: none"> maintains the correct language in some of the solution does not clearly explain or justify solution | <ul style="list-style-type: none"> maintains the correct language throughout most of the solution explains and justifies solution somewhat | <ul style="list-style-type: none"> maintains the correct language throughout the solution explains and justifies solution fully | <ul style="list-style-type: none"> maintains the correct language throughout the solution explains, justifies and shows insight into the complexities of the solution |
| Application <ul style="list-style-type: none"> determines equations for each part of the ride which satisfy the four criteria shows a mathematical proof that the rates of change at the joins satisfy the criteria | <ul style="list-style-type: none"> interprets the information ineffectually, by producing equations satisfying only one of the criteria and lacking a convincing proof concerning the rates of change at the joins | <ul style="list-style-type: none"> interprets the information somewhat effectually, by producing equations satisfying two of the criteria and attempting a proof concerning the rates of change at the joins | <ul style="list-style-type: none"> interprets the information with considerable effectiveness, by producing equations satisfying three of the criteria and showing a proof concerning the rates of change at the joins | <ul style="list-style-type: none"> interprets the information with a high degree of effectiveness, by producing equations satisfying all four of the criteria and showing a convincing proof concerning the rates of change at the joins |