

Task Rubric – Caterpillar Growth Problem

Expectations*	Criteria	Level 1	Level 2	Level 3	Level 4
Knowledge and Understanding					
The student:					
1	– accurately uses exponential and piecewise mathematical models (e.g., equations, tables of values, graphs)	– uses mathematical models with limited accuracy	– uses mathematical models with some accuracy	– uses mathematical models with considerable accuracy	– uses mathematical models with a high degree of accuracy
Thinking					
The student:					
2	– effectively analyses the advantages and disadvantages of the four options	– analyses the advantages and disadvantages of the four options with limited effectiveness	– analyses the advantages and disadvantages of the four options with some effectiveness	– analyses the advantages and disadvantages of the four options with considerable effectiveness	– analyses the advantages and disadvantages of the four options with a high degree of effectiveness
Communication					
The student:					
3	– clearly communicates information in tables and graphs	– communicates information in tables and graphs with limited clarity	– communicates information in tables and graphs with some clarity	– communicates information in tables and graphs with considerable clarity	– communicates information in tables and graphs with a high degree of clarity
3	– effectively integrates text and mathematical forms	– integrates text and mathematical forms with limited effectiveness	– integrates text and mathematical forms with some effectiveness	– integrates text and mathematical forms with considerable effectiveness	– integrates text and mathematical forms with a high degree of effectiveness
Application					
The student:					
4	– effectively formulates exponential or piecewise mathematical models for the four options provided	– formulates mathematical models with limited effectiveness	– formulates mathematical models with some effectiveness	– formulates mathematical models with considerable effectiveness	– formulates mathematical models with a high degree of effectiveness
5	– effectively recommends and justifies a course of action	– recommends and justifies a course of action with limited effectiveness	– recommends and justifies a course of action with some effectiveness	– recommends and justifies a course of action with considerable effectiveness	– recommends and justifies a course of action with a high degree of effectiveness

*The expectations that correspond to the numbers given in this chart are listed on page 84.

Note: A student whose overall achievement at the end of a course is below level 1 (that is, below 50%) will not obtain a credit for the course.