PEPPERED MOTH

1. The curves on the graph below represent the frequency of homozygous recessive peppered moths in two different environments. One group is living in an area free of pollution; the other is living in an area polluted by emissions from coal burning factories.

- Describe and interpret each curve with regard to the rate at which the population of light colored moths is changing.
- Describe, in general, what is happening to the peppered moth population under these two different conditions. What is causing the differences in the populations?

Graph 4 (Untitled)   Years   12:19 PM Fri, Feb 4, 2000

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Continue your answer to Question 1 on the back.

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2. Computer models are tools for learning about the things they are meant to resemble. A model's usefulness in understanding a real world situation can be determined by examining the assumptions underlying the model and by comparing its output to actual observations in the real world.

- Determine the usefulness of the peppered moth model by describing at least two similarities between the model and real world outcomes. Give specific details to support your answer.
- Describe at least one limitation of the peppered moth model with respect to its ability to replicate real world behavior.

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