Problem-Solving Decisions: Reasonable Answers

Use the questions to help you solve.

1. Rigoberto is making a tabletop scale model of the Nile River. The Nile River is 4,160 miles long. He considers these scales: 1 inch = 1 mile, 1 inch = 10 miles, 1 inch = 100 miles, 1 inch = 1,000 miles. Which scale makes the most sense for his model? Why?

   **UNDERSTAND**

   What factors affect Rigoberto’s decision?
   
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   **PLAN**

   How can you check each scale to decide if it is reasonable?
   
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   **SOLVE**

   Why isn’t 1 inch = 1 mile a reasonable scale for his model?
   
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   Would any of the scales produce a model that is too small?
   
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   Which scale is about the right size for a tabletop?
   
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   **LOOK BACK**

   Does your answer include a full explanation? If not, add a complete explanation.
   
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2. Betina is drawing a scale diagram of Mount Aconcagua for the front page of her report. This Argentinean mountain is 22,834 feet high. She considers these scales: 1 inch = 5 feet, 1 inch = 50 feet, 1 inch = 500 feet, 1 inch = 5,000 feet. Which scale is most appropriate for her diagram?