

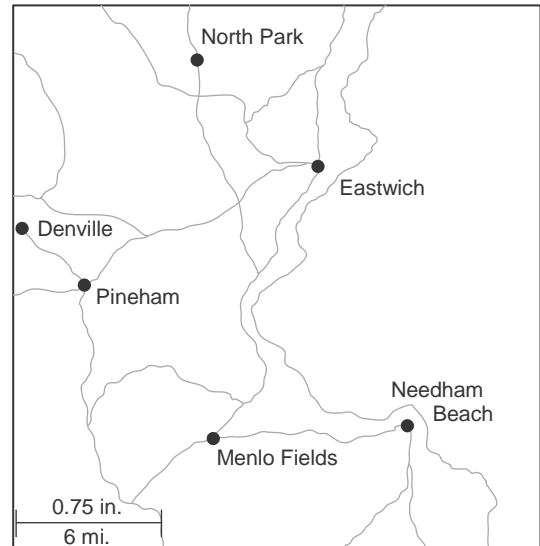
7-7**Study Guide and Intervention****Scale Drawings and Models**

Scale Models A scale model or a scale drawing is an object or drawing with lengths proportional to the object it represents. The scale of a model or drawing is the ratio of the length of the model or drawing to the actual length of the object being modeled or drawn.

Exercises

Use the map and a customary ruler to find the actual distance between each pair of cities. Measure to the nearest sixteenth of an inch.

1. Eastwich and Needham Beach
2. North Park and Menlo Fields
3. North Park and Eastwich
4. Denville and Pineham
5. Pineham and Eastwich



Use Scale Factors The **scale factor** of a drawing or scale model is the scale written as a unitless ratio in simplest form. Scale factors are always written so that the model length in the ratio comes first.

Exercises

1. **MODEL TRAIN** The length of a model train is 18 inches. It is a scale model of a train that is 48 feet long. Find the scale factor.
2. **ART** An artist in Portland, Oregon, makes bronze sculptures of dogs. The ratio of the height of a sculpture to the actual height of the dog is 2:3. If the height of the sculpture is 14 inches, find the height of the dog.
3. **BRIDGES** The span of the Benjamin Franklin suspension bridge in Philadelphia, Pennsylvania, is 1750 feet. A model of the bridge has a span of 42 inches. What is the scale factor of the model to the span of the actual Benjamin Franklin Bridge?

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Study Guide and Intervention *(continued)*

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Example