

Skills Practice

5-2B

Scale Drawings

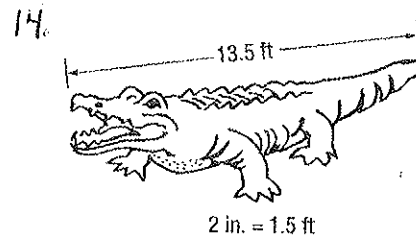
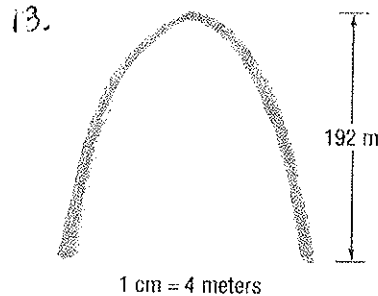
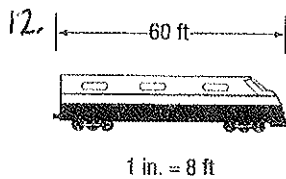
ARCHITECTURE The scale on a set of architectural drawings for a house is $\frac{1}{2}$ inch = $1\frac{1}{2}$ feet. Find the length of each part of the house.

	Room	Drawing Length	Actual Length
1.	Living Room	5 inches	
2.	Dining Room	4 inches	
3.	Kitchen	$5\frac{1}{2}$ inches	
4.	Laundry Room	$3\frac{1}{4}$ inches	
5.	Basement	10 inches	
6.	Garage	$8\frac{1}{3}$ inches	

ARCHITECTURE As part of a city building refurbishment project, architects have constructed a scale model of several city buildings to present to the city commission for approval. The scale of the model is 1 inch = 9 feet.

- The courthouse is the tallest building in the city. If it is $7\frac{1}{2}$ inches tall in the model, how tall is the actual building?
- The city commission would like to install new flagpoles that are each 45 feet tall. How tall are the flagpoles in the model?
- In the model, two of the flagpoles are 4 inches apart. How far apart will they be when they are installed?
- The model includes a new park in the center of the city. If the dimensions of the park in the model are 9 inches by 17 inches, what are the actual dimensions of the park?
- Find the scale factor.

Find the length of each model. Then find the scale factor.



Name: _____ Date: _____

5-2B Scale Drawings

Length

$$1 m = 100 cm$$

$$1 ft = 12 in$$

$$1 m = 1000 mm$$

$$1 yd = 3 ft$$

$$1 cm = 10 mm$$

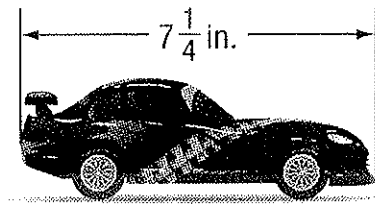
$$1 yd = 36 in$$

$$1 km = 1000 m$$

$$1 mi = 5280 ft$$

$$1 mi = 1760 yd$$

15. The model of a car is shown to the right. The actual car is $14\frac{1}{2}$ feet long. What is the scale?



16. A model airplane is built with a wingspan of $23\frac{1}{4}$ inches. The actual wingspan is $92\frac{1}{2}$ feet. Find the scale.

17. A large American flag is 255 feet wide. In an advertisement for renting this flag, the image of the flag is 4 inches wide. What is the scale?