

6-4 Skills Practice

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Scale Drawings and Models

On a set of architectural drawings for a new school building, the scale is

$\frac{1}{4}$ inch = 2 feet. Find the missing lengths of the rooms.

	Room	Drawing Length	Actual Length
1.	Lobby		16 feet
2.	Principal's Office	1.25 inches	
3.	Library		20 feet
4.	School Room	3 inches	
5.	Science Lab	1.5 inches	
6.	Cafeteria		48 feet
7.	Music Room	4 inches	
8.	Gymnasium	13 inches	
9.	Auditorium		56 feet
10.	Teachers' Lounge	1.75 inches	

11. Refer to Exercises 1–10. What is the scale factor?
12. What is the scale factor if the scale is 10 inches = 1 foot?
13. **STRUCTURES** A barn is 40 feet wide by 100 feet long. Make a scale drawing of the barn that has a scale of $\frac{1}{2}$ inch = 10 feet.
14. **MAPS** On a map, the key indicates that 1 centimeter equals 3.5 meters. A road is shown on this map that runs for 30 centimeters. How long is this road?