13-1

Converting Customary Units of Length

How to change a length measurement from one unit to another:

Converting a length measurement from a smaller unit to a larger unit

6 feet = ____ vards

1 yd			1 yd			
1 ft	1 ft	1 ft	1 ft	1 ft	1 ft	
<6 ft→						

Think: If I measure the same length using a larger unit, I will need a smaller number of units.

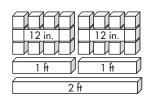
Operation: Divide.

You know 3 ft = 1 yd.

Find $6 \div 3$; 6 ft = 2 yd

Converting a length measurement from a larger unit to a smaller unit

2 feet = ____ inches



Think: If I measure the same length using a smaller unit, I will need a larger number of units.

Operation: Multiply.

You know 1 ft = 12 in.

Find 2 × 12; 2 ft = 24 in.

Relationships Among Customary Units of Length							
Inch	Foot		Yard	Mile			
12 in. = 1 ft							
36 in. =	3 ft	=	1 yd				
	5,280 ft	=	1,760 yd =	= 1	mi		

Complete.

Converting Customary Units of Length

Convert each unit.

Write >, =, or < for each \bigcirc .

7. 64 in.
$$\bigcirc$$
 5 ft

8. 2 mi
$$\bigcirc$$
 3,333 yd

8. 2 mi
$$\bigcirc$$
 3,333 yd **9.** 36 yd 2 ft \bigcirc 114 ft 2 in.

The Statue of Liberty was a gift to the United States from the people of France. Some of the dimensions of the statue are shown here.

Measurements of the Statue of Liberty					
Height from base of statue to the torch	151 ft 1 in.				
Length of hand	16 ft 5 in.				
Length of index finger	8 ft				
Length of nose	4 ft 6 in.				
Thickness of right arm	12 ft				

- **10.** What is the height, from the base of the statue to the torch, in inches?
- 11. What is the thickness of the statue's right arm in yards?
- **12.** Which measure is less than 435 inches?
 - **A** 37 ft
- **B** 36 ft 10 in.
- **C** 12 yd 3 in.
- **D** 12 ft 3 in.
- 13. Explain how you can find the number of feet in 40 yards.