$\qquad$
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 $=$ $\qquad$ yards

| 1 yd |  |  | 1 yd |  |  |
| :---: | :---: | :--- | :--- | :--- | :--- |
| 1 ft | 1 ft | 1 ft | 1 ft | 1 ff | 1 ft |



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

Operation: Divide.
You know $3 \mathrm{ft}=1 \mathrm{yd}$.
Find $6 \div 3 ; 6 \mathrm{ft}=2 \mathrm{yd}$

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

2 feet $=$ $\qquad$ inches


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

Operation: Multiply.
You know $1 \mathrm{ft}=12 \mathrm{in}$.
Find $2 \times 12 ; 2 \mathrm{ft}=24 \mathrm{in}$.

| Relationships Among Customary Units of Length |  |  |  |
| :---: | :---: | :---: | :---: |
| Inch | Foot | Yard | Mile |
| $12 \mathrm{in} .=$ |  | 1 ft |  |
| $36 \mathrm{in} .=3 \mathrm{ft}=1 \mathrm{yd}$ |  |  |  |
|  | $5,280 \mathrm{ft}=1,760 \mathrm{yd}=1 \mathrm{mi}$ |  |  |

Complete.

1. $5 \mathrm{ft}=$ $\qquad$ in.
2. $3 \mathrm{mi}=$ $\qquad$ ft
3. 108 in . $=$ $\qquad$ ft
4. 72 in. $=$ $\qquad$ yd
5. 2 ft 3 in . $=$ $\qquad$ in.
6. 45 in. $=$ $\qquad$ yd $\qquad$ in.
7. Which is the greater length, 2 yards or 5 feet?
8. Estimation A creek runs along a distance of 16,300 feet. About how many miles long is the creek? $\qquad$
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## Converting Customary Units of Length

Convert each unit.

1. $12 \mathrm{yd}=$ $\qquad$ in.
2. $30 \mathrm{ft}=$ $\qquad$ yd
3. $75 \mathrm{ft}=$ $\qquad$ in.
4. $10 \mathrm{ft} 7 \mathrm{in} .=$ $\qquad$ in.
5. $6 \mathrm{mi}=$ $\qquad$ ft
6. $2 \mathrm{mi}=$ $\qquad$ yd
Write $>,=$, or $<$ for each $\bigcirc$.
7. 64 in . $\bigcirc 5 \mathrm{ft}$
8. $2 \mathrm{mi} \bigcirc 3,333 \mathrm{yd}$
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.
