

## The U.S. Customary System of Measurement

The standard U.S. Customary System units of length are **inch**, **foot**, **yard**, and **mile**. The abbreviations for these units of length are in., ft, yd, and mi. Equivalences between units of length in the U.S. Customary System are:

$$\begin{aligned}1 \text{ ft} &= 12 \text{ in.} \\1 \text{ yd} &= 3 \text{ ft} \\1 \text{ yd} &= 36 \text{ in.} \\1 \text{ mi} &= 5,280 \text{ ft}\end{aligned}$$

**Weight** is a measure of how strongly Earth is pulling on an object. The U.S. Customary System units of weight are **ounce**, **pound**, and **ton**. The abbreviation for ounces is oz, and the abbreviation for pounds is lb. Equivalences between units of weight in the U.S. Customary System are:

$$\begin{aligned}1 \text{ lb} &= 16 \text{ oz} \\1 \text{ ton} &= 2,000 \text{ lb}\end{aligned}$$

Liquids are measured in units of **capacity**. The standard U.S. Customary System units of capacity (and their abbreviations) are the **fluid ounce** (fl oz), **cup** (c), **pint** (pt), **quart** (qt), and **gallon** (gal). Equivalences between units of capacity in the U.S. Customary System are:

$$\begin{aligned}1 \text{ c} &= 8 \text{ fl oz} \\1 \text{ pt} &= 2 \text{ c} \\1 \text{ qt} &= 4 \text{ c} \\1 \text{ gal} &= 4 \text{ qt}\end{aligned}$$

**Area** is a measure of the amount of surface in a region. The standard U.S. Customary System units of area are **square inch** (in<sup>2</sup>), **square foot** (ft<sup>2</sup>), **square yard** (yd<sup>2</sup>), **square mile** (mi<sup>2</sup>), and **acre**. Equivalences between units of area in the U.S. Customary System are:

$$\begin{aligned}1 \text{ ft}^2 &= 144 \text{ in}^2 \\1 \text{ yd}^2 &= 9 \text{ ft}^2 \\1 \text{ acre} &= 43,560 \text{ ft}^2 \\1 \text{ mi}^2 &= 640 \text{ acres}\end{aligned}$$

km   hm   dam   m   dm   cm   mm

### *Units of Length*

$$\begin{aligned}1 \text{ in.} &\approx 2.54 \text{ cm} \\1 \text{ m} &\approx 3.28 \text{ ft} \\1 \text{ m} &\approx 1.09 \text{ yd} \\1 \text{ mi} &\approx 1.61 \text{ km}\end{aligned}$$

### *Units of Weight*

$$\begin{aligned}1 \text{ oz} &\approx 28.35 \text{ g} \\1 \text{ lb} &\approx 454 \text{ g} \\1 \text{ kg} &\approx 2.2 \text{ lb}\end{aligned}$$

### *Units of Capacity*

$$\begin{aligned}1 \text{ L} &\approx 1.06 \text{ qt} \\1 \text{ gal} &\approx 3.79 \text{ L}\end{aligned}$$