

# COMMON SYSTEMS OF WEIGHTS AND MEASURES

## METRIC SYSTEM

### Metric Weight

1 femtogram (fg) = 0.001pg

1 picogram (pg) = 0.001ng

1 nanogram (ng) = 0.001 $\mu$ g

1 microgram ( $\mu$ g) = 0.001mg

1 milligram (mg) = 0.001g

1 centigram (cg) = 0.01g

1 decigram (dg) = 0.1g

1 gram (g) = 1g

1 dekagram (dag) = 10g

1 hectogram (hg) = 100g

1 kilogram (kg) = 1000g

### Metric Liquid Measure

1 femtoliter (fL) = 0.001pL

1 picoliter (pL) = 0.001nL

1 nanoliter (nL) = 0.001 $\mu$ L

1 microliter ( $\mu$ L) = 0.001mL

1 milliliter (mL) = 0.001L

1 centiliter (cL) = 0.01L (10 mL)

1 deciliter (dL) = 0.1L (100 mL)

1 liter (L) = 1L (1000 mL)

1 dekaliter (daL) = 10L

1 hectoliter (hL) = 100L

1 kiloliter (kL) = 1000L

## APOTHECARY SYSTEM<sup>1</sup>

### Apothecary Weight Equivalents

1 grain<sup>2</sup> (gr) = 1 gr

1 scruple ( $\mathfrak{S}$ ) = 20 gr

1 dram ( $\mathfrak{D}$ ) = 60 gr = 3  $\mathfrak{S}$

1 ounce ( $\mathfrak{O}$ ) = 480 gr = 8  $\mathfrak{D}$

1 pound (lb) = 7680 gr = 16  $\mathfrak{O}$

### Apothecary Volume Equivalents

1 minim ( $\mathfrak{M}$ ) = 1  $\mathfrak{M}$

1 fluidram ( $\mathfrak{f}\mathfrak{z}$ ) = 60  $\mathfrak{M}$

1 fluid ounce ( $\mathfrak{f}\mathfrak{z}$ ) = 480  $\mathfrak{M}$  = 8  $\mathfrak{f}\mathfrak{z}$

1 pint (pt or O) = 7680  $\mathfrak{M}$  = 16  $\mathfrak{f}\mathfrak{z}$

1 quart (qt) = 15360  $\mathfrak{M}$  = 32  $\mathfrak{f}\mathfrak{z}$

1 gallon (gal or cong) = 61440  $\mathfrak{M}$  = 128  $\mathfrak{f}\mathfrak{z}$

## AVOIRDUPOIS SYSTEM<sup>3</sup>

### Avoirdupois Equivalents

1 ounce (oz) = 437.5 grains (gr)

1 pound (lb) = 16 ounces (oz) = 7000 grains (gr)

## NOTES

<sup>1</sup>Apothecary—used in preparation of pharmaceuticals.

<sup>2</sup>The grain in each of the above systems has the same value and thus serves as a basis for the interconversion of the other units.

<sup>3</sup>Avoirdupois is used by manufacturers and wholesalers.