

Weights and Measures

The Avoirdupois is the common weight system for most items. For example, cooking and the postal system are in Av. ounces.

Use troy ounce for precious metals.

20 dwt. (pennyweight)	= 1 troy oz.
31.1 grams	= 1 troy oz.
480 grains	= 1 troy oz.
12 troy oz.	= 1 troy lb.
1 dwt. (pennyweight)	= 1.555 grams
14.583 troy ounces	= 1 Avoirdupois lb.
16 Avoirdupois (Av)	= 1 Avoirdupois lb.

History plays a big role in the designation of precious metal terms. The Pennyweight used to measure precious metals originated in England from the 700's to about 991 A.D. The pennyweight was the actual weight of an English Sterling Silver Penny coin. A pennyweight is equal to 24 grains. A Grain originally was the weight of a grain of wheat or barley from the middle part of the ear of grain.

In the history of money, we have we have continued to borrow from the Romans. *Libra* is Latin for pound which is where the pound sterling of England arose. To this day, the English pound is so designated by "L". In weights and measures, the short hand designation of pound is written lb. derived from the Roman *Libra*. Further, *denarius* the Latin word came to stand for penny in the English language. *Denarius* was abbreviated commonly by "d". Thus pennyweight is abbreviated as dwt.

The Troy system is so named from Troyes, France where they measured 480 grains to equal a troy ounce. In Troyes, 12 troy ounces equaled one troy pound. The price of precious metal markets are expressed in the troy ounce system to this day.

Over time the karat system evolved for jewelry. 24 karats indicates that a item is pure gold or 99.99 pure or 0.9999 fine. Sometimes in European, "c" carat is used rather than karat as in America.

Karat Gold

U.S. Hallmark	%	Fineness	European Hallmark
10k is 10/24	41.67%	.417 fine	.417
14k is 14/24	58.3%	.585 fine	.585 (rounded up)
18k is 18/24	75.0%	.750 fine	.750
24k is 24/24	99.999%	.9999 fine	

An American carat is used as a measure of gems such as diamonds. Please note the following:

1 Carat (c. or ct.) = 100 “points”
 = 0.2 gram
 = 200 milligram
 = 0.1286 dwt

1 Pearl Grain = 0.25 carat

1 Gram = 5 carats