

Conversion Factors for Precious Metal Sales					
Troy Units			Metric (SI) Units*		
	troy ounce (oz T)	pennyweight (dwt)	grains (gr)	gram (g)	milligrams (mg)
1 troy ounce	1	20	480	31.103 476 8	31 103.476 8
1 gram	0.032 150 75	0.643 014 9	15.432 36	1	1,000
1 pennyweight	0.05	1	24	<u>1.555 173 84</u>	1555.173 84
How do I compute the price per pennyweight?					
If the price per troy ounce of gold is \$1,181.93**					
Divide the price-per-troy ounce by 20: $\$1,181.93 \div 20 = \59.10 per pennyweight					
To compute the total price of an item of jewelry that has been weighed on the gold buyers balance in pennyweights and has been determined to have the weight of 6.85 dwt:					
Price per troy oz $\div 20 \times$ weight of jewelry in pennyweights = total price in \$					
Example: $\$1181.93$ per troy ounce $\div 20 = \$59.10$ per pennyweight $\times 6.85$ dwt = $\$404.84$					
How do I convert from price per gram to price per troy ounce?					
If the price per gram of gold is \$38					
Multiply the price per gram by 31.103 476 8					
$31.103\ 476\ 8 \times \$38$ per gram = $\$1,181.93$ per troy ounce					
How do I convert from price per troy ounce to price per gram?					
If the price per troy ounce of gold is \$1,181.93					
Divide the price per troy ounce by 31.103 476 8					
$\$1,181.93 \div 31.103\ 476\ 8 = \38 price per gram**					
How do I convert the weight of an item of jewelry from grams to pennyweights?					
Multiply the weight of jewelry in grams \times pennyweights per gram to obtain the weight of the jewelry in pennyweights					
Example: weight of jewelry in grams is 4.40 g $\times 0.643\ 014\ 9 = 2.83$ dwt					
If a gold buyer offers to pay you \$59.10 per dwt for your jewelry:					
$\$59.10$ per dwt $\times 2.83$ dwt = $\$167.25$ (which is what you should be paid for your jewelry)					
* The International System of Units (SI) (metric system). ** The price of gold is traditionally given in Troy Ounces and U.S. Dollars. The prices offered by buyers or sellers usually reflect reductions based on an item's gold "karat" content and deductions for other factors. The karat (k) is a measure of the purity of gold alloy. For example, if an item is marked 24 k it is made of 99.9 % pure gold, an item marked 18 k is made of 75 % gold and an item marked 12 k is made of 50 % gold. Some of the values shown above were rounded.					
2.17. Precious Metals¹ - 2.17.1. Precious metals: Gold, silver, platinum, or any item composed partly or completely of these metals or their alloys and in which the market value of the metal in the item is principally the gold, silver, or platinum component. 2.17.2. Quantity. - The unit of measure and the method of sale of precious metals, if the price is based in part or wholly on a weight determination, shall be either Troy weight or SI units. When the measurement or method of sale is expressed in SI units of mass, a conversion chart to Troy units shall be prominently displayed so as to facilitate price comparison. The conversion chart shall also display a table of Troy weights indicating grains, pennyweights, and troy ounces. (¹ From Section 2.17 the Method of Sale of Commodities Regulation in the 2010 Edition of NIST Handbook 130 "Uniform Laws and Regulations in the Areas of Legal Metrology..." at www.nist.gov/owm)					