

## GOLD SILVER VALUE FORMULA

Number 191

For production prior to 1934, proportions of gold and silver-by weight and value-can be estimated for different mining areas by reference to statistics of prices for both metals, based upon a mint ratio of 16 to 1 , with gold set at $\$ 20.67$ a troy ounce, yielding $\$ 1.29$ for silver. To convert an area's total dollar production to ounces of gold and silver, divide that amount by its approximate combined value per ounce, and then split that total into volume of gold and silver by consulting this table to ascertain an approximate composition of each metal. Neither pure gold ( $\$ 20.67$ ) nor pure silver ( $\$ 1.29$ ) is found in placer mines, so values for metal recovered in any district vary between those limits. After 1872, silver prices fluctuated considerably, while market prices for silver exceeded that amount in earlier years.

| \% of Gold | \% of Silver |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| 90 | 10 | $\$ 18.73$ |  |
| 80 | 20 | 16.39 |  |
| 70 | 30 | 14.86 |  |
| 60 | 40 | 12.92 |  |
| 50 | 50 | 10.98 |  |
| 40 | 60 | 9.04 |  |
| 30 | 70 | 7.10 |  |
| 20 | 80 | 5.16 |  |
| 10 | 90 | 3.23 |  |

Intermediate ranges can be interpolated easily. As an example, since Florence gold production generally was valued at $\$ 10$ to $\$ 12$ an ounce, its total number of ounces of gold (based upon a value of $\$ 9,600,000$ ) would have been almost half of 960,000 with an equal amount of silver. Boise Basin, with perhaps $\$ 60,000,000$ at a little over $\$ 18.00$ could have had 2,900,000 ounces of which 29,000 would have been silver and 2,610,000 might have been gold. Fewer ounces of gold would have been represented by a price of $\$ 35$.

