

1:1.618: Golden for 8 centuries

The ancients probably adopted the 1:1.618 ratio because it made things look good. In the thirteenth century, Italian mathematician Leonardo Fibonacci recognized a series of numbers that is now known as the Fibonacci series. As it turns out, if you divide any Fibonacci number by the previous number you get a close approximation of the Golden Mean. The series may be calculated by adding the previous number to the current number to get the next number ($1 + 2 = 3$, $2 + 3 = 5$, $3 + 5 = 8$ and so forth).

The Golden Mean has several uses in woodturning:

- While turning an object, adjust the height to the diameter.
- Divide a turning so that the lower section is 1.618 times the height of the top section.
- Divide a lidded box from top to bottom by the Golden Mean (the longer dimension is usually on the bottom).

The Golden Mean—while useful—is only a guide to one set of height and diameter ratios. If you rely on it too frequently your work will probably become boring. (At best, the Golden Mean figures into less than 20 percent of my own work.) There are many other shapes and ratios that work well. It is most important to make turnings that look good to your eye and have shapes that feel good to your touch.

Golden Ratio 1:1.618

Divide any Fibonacci number by the previous number

Calipers designed by Bill Smith
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1.618 Units →

← 1.618 Units

Arrows indicate the optimal point of contact for an exact ratio when making measurements. When closed, the arrow points should just meet. The length from the pivot point to the first arrows, compared to the length from the pivot point to the second arrows forms a ratio of 1:1.618 and any calipers laid out in this ratio will work.

1 Unit →

← 1 Unit

Fibonacci number series under 1,000.
Add any number to the previous number to get the next number.

1
2
3
5
8
13
21
34
55
89
144
233
377
610
987