The Salamis Tablet
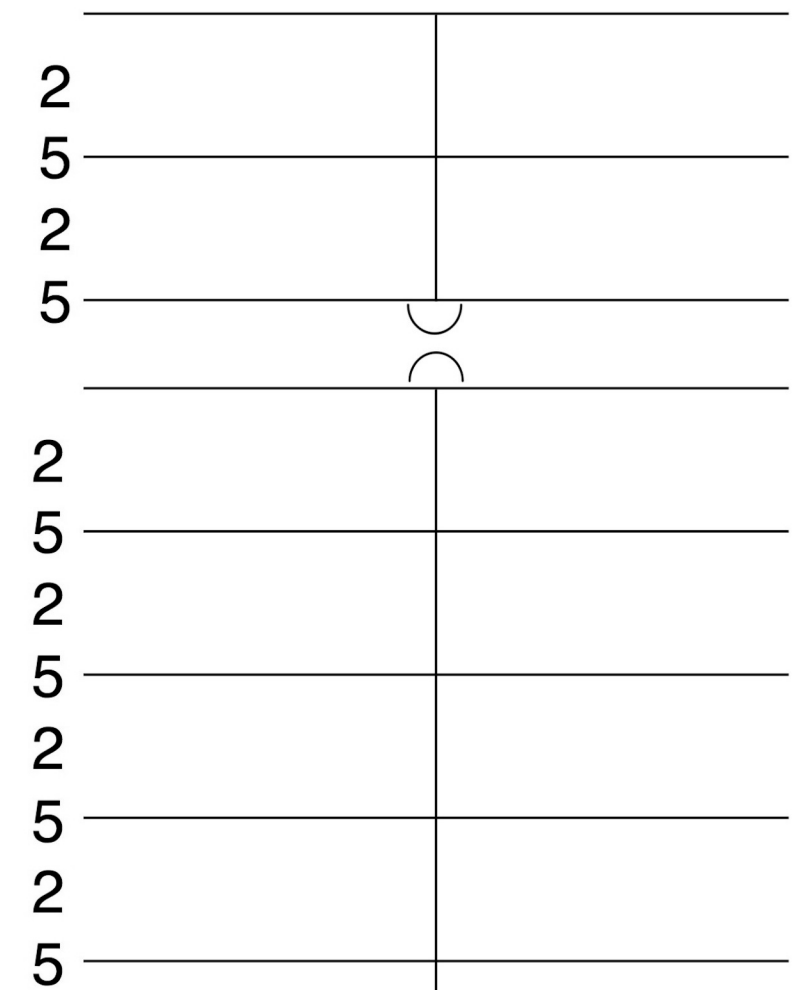
A circle represents a whole. Two semi-circles represent two parts of a whole. So a number has two parts: a fraction (lower grid) and a radix point shift (upper grid), which we call a base exponent.
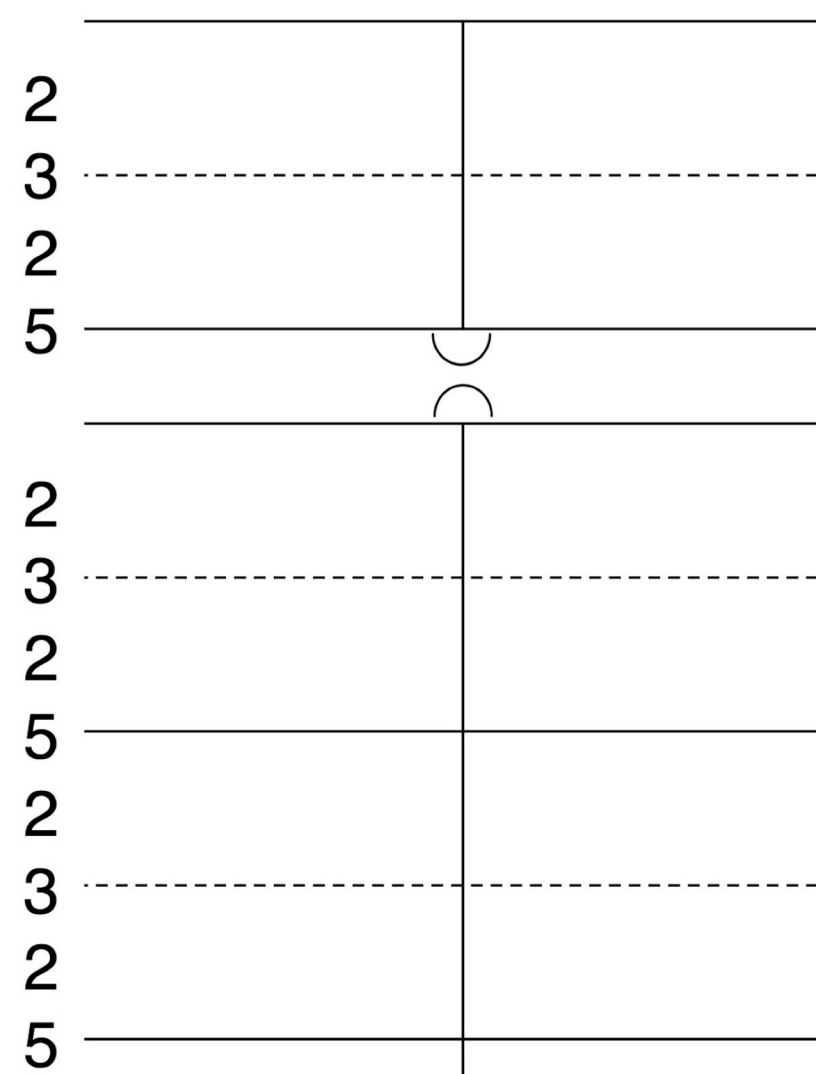
For base 60, the tablet accommodates 5 digits (pun intended) for the fraction and 2 digits for the radix shift.

We have 5 fingers per hand and 2 hands.

Coincidence? NOT!
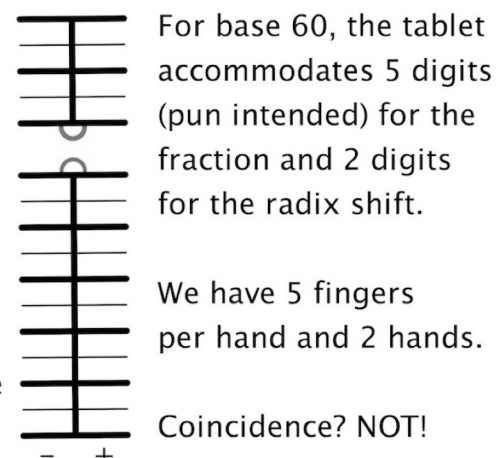
The endpoints of each semicircle point to the additive and subtractive sides of each part.

Use ~100 pennies or pebbles.

Base 10 Promotion Factors

2
5
2
5

2
5
2
5
2
5
2
5

Base 60 Promotion Factors

2
3
2
5

2
3
2
5
2
3
2
5

The Stephenson Abacus™

Radix Shift

− +

Coefficient

The Stephenson Abacus™

Radix Shift

− +

Coefficient

The Stephenson Abacus™

Radix Shift

− +

Coefficient

Base 12 Promotion Factors with Frontinus' result.

- 1s
- 1/2s
- 1/6s
- 1/12s (One and one half twelfths.)
- 1/24s
- 1/72s
- 1/144s (One 1/144s is two 1/288s, plus
- 1/288s one 1/288s is 3/288s.)
- 1/864s (Two thirds of 288.)
- 1/1728s

Fraction

+

−
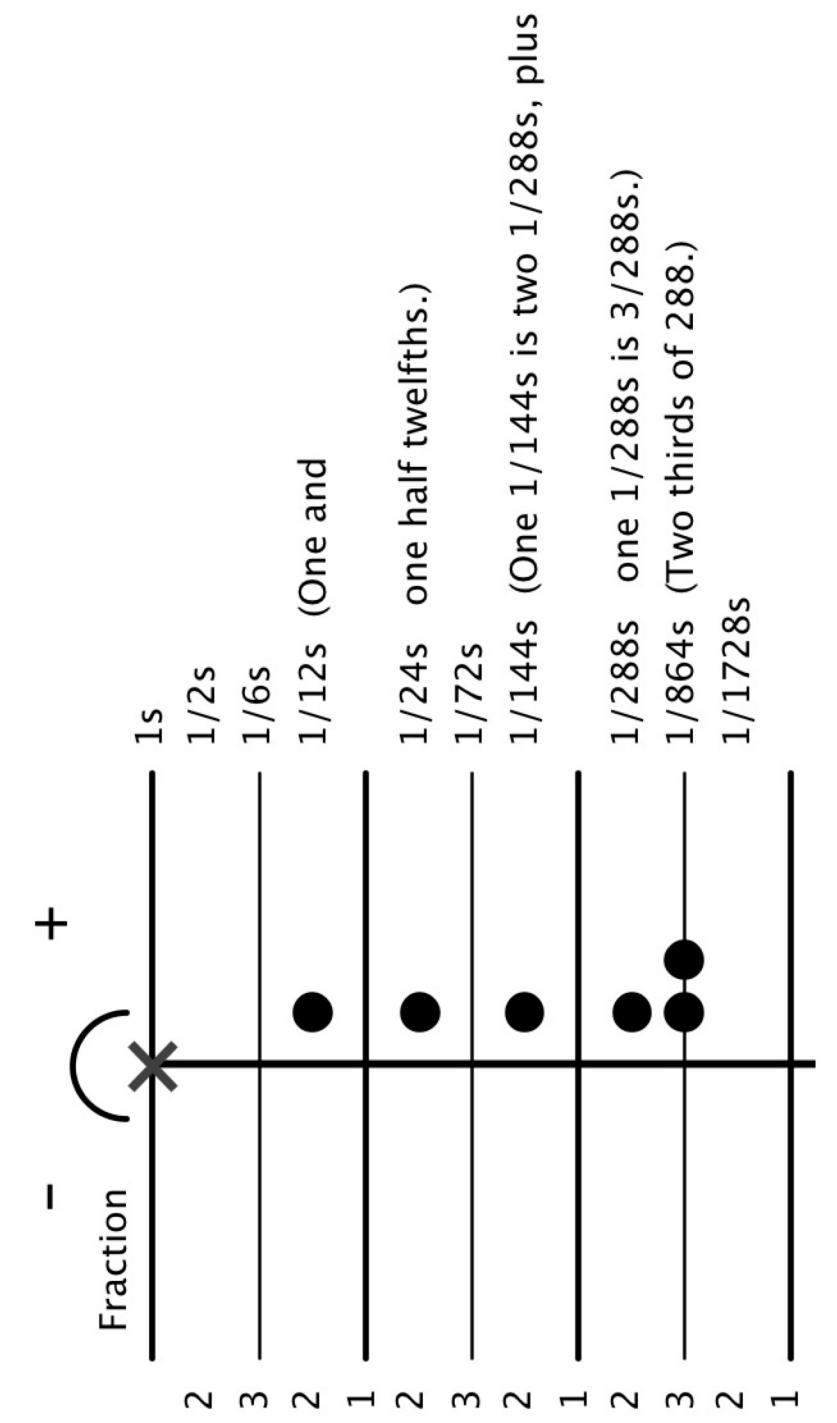
Addition / Subtraction Strategies

Enter one number next to the median and the other away from the median on a single tablet. If one number is being subtracted, move all its fraction tokens to the opposite side of the median. Shift the number with the smaller radix shift down until both radix shifts are the same. Remove one number's radix shift and combine the two fractions. Use zero pairs to make sum readable.

Multiply / Divide Strategies

Radix Shifts

Multiplicand | Multiplier → 0 | Product

Divisor | − Quotient | Dividend → 0