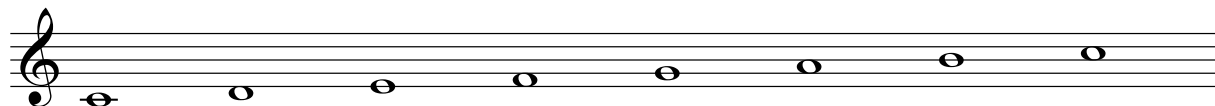


Tunings and Temperaments

Pythagorean Tuning (based on pure fourths and fifths)

Ratio from C 1 9:8 81:64 4:3 3:2 27:16 243:128 2:1



Cents difference 204 204 90 204 204 204 204 90

Mean Tone Temperament (1/4-tone comma - based on pure major thirds)

Ratio from C 1 180:161 5:4 107:80 163:109 x x 2:1
[80:64]



Cents difference 193 193 117 193 193 193 193 117

The syntonic comma is the name given to the ratio difference of 81:80, also expressed by:

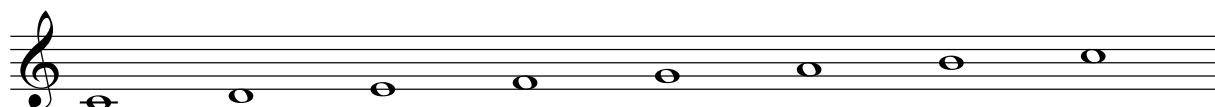
$$702 \text{ cents} \times 4 = 2808 \text{ cents}$$

$$(1200 \text{ cents} \times 2) + 386 \text{ cents} = 2786 \text{ cents}$$

The difference of (approximately) 22 cents is equivalent to (approximately) 1/4 semitone

Equal Temperament

Ratio from C 1 449:400 63:50 303:227 433:289 37:22 168:89 2:1



Cents difference 200 200 100 200 200 200 200 100

Just Intonation (based on simple integer ratios)

Ratio from C 1 9:8 5:4 4:3 3:2 5:3 15:8 2:1



Ratio difference 9:8 10:9 16:15 9:8 10:9 9:8 16:15

Cents difference 204 182 112 204 182 204 112