

*for Audra Wolowiec and Gary Schultz*

Each a Step Closer

NY / LA

Audra lives in New York: (40.7 N, 74 W)

Gary lives in Los Angeles: (34 N, 118.3 W)

Using the step ratios from the scale below, they find new coordinates:

$$\begin{aligned} (180 - (9/8 (90))) - 40.7 &= 38 & (180 - (19/10 (90))) - 34 &= 25 \\ (360 - (9/8 (180))) - 74 &= 83.5 & (360 - (19/10 (180))) - 118.3 &= 100.3 \end{aligned}$$

Coordinates are used as absolute values and then returned to their original sign (hemisphere).

Gary travels to Monterrey, Mexico: (25 N, 100.3 W)

Audra travels to Daniel Boone National Forest in Kentucky: (38 N, 83.5 W)

Audra's 9/8 ratio is a whole-step up (about 575 miles), and Gary's 19/10 ratio is a half-step down (about 1550 miles).

cycle of intervals (adjacent numbers are golden ratio multiples):

A musical staff with a treble clef and a key signature of one sharp (F#). The notes are: C4 (1), C#4 (2), D4 (3), D#4 (4), E4 (5), E#4 (6), F4 (7), F#4 (8), G4 (9), G#4 (10), A4 (11), A#4 (12), B4 (13), B#4 (14), C5 (15). The ratios between adjacent notes are: 1/1, 16/15, 9/8, 6/5, 5/4, 13/10, 7/5, 16/11, 14/9, 13/8, 12/7, 9/5, 19/10, 51/25.