Lissajous Plane Curve *

The Lissajous curves show the orbits of two orthogonal harmonic undamped oscillators.

$$\text{Lissajous}(t) := \begin{pmatrix} aa \cdot \sin(ee \cdot t + cc) \\ bb \cdot \sin(dd \cdot t) \end{pmatrix},$$

Default values: $dd = 3, \ ee = 5, \ cc = 0$.

If the parameters dd, ee are integers then the curves are closed. Actually, a rational ratio is sufficient.
The default morph varies the phase cc, which changes the curves a lot.

These planar curves have obvious analogues in $\mathbb{R}^3$.

H.K.