This worksheet demonstrates how to plot a parametric curve \( \{x(t), y(t)\} \).

The example we will use is that of Lissajous figures, that were discussed in conjunction with the velocity of sound lab. Simply input your \( \omega \)-parameters and the phase angle \( \phi \).

\[
\omega_x := 1 \quad \omega_y := 1 \quad \phi := \frac{\pi}{2}
\]

\[
x(t) := \sin(\omega_x t) \quad y(t) := \sin(\omega_y t + \phi)
\]

Here are the two functions

Change the parameters to see how they effect the curve.

It is easy to see how to modify this for other parametric functions.