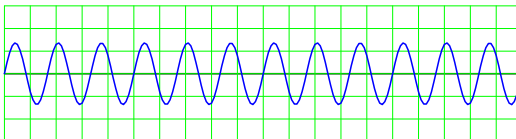


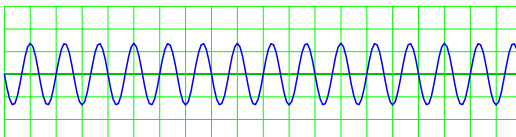
Adding two sine waves: $f_1 = 1000 \text{ Hz}$, $f_2 = 1250 \text{ Hz}$.

Note: These can be thought of as 4th and 5th harmonics of 250 Hz.



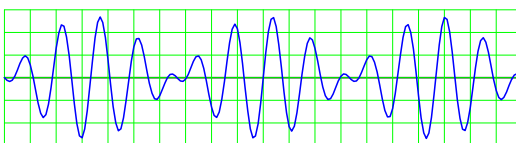
$$y = 1.0 \sin(360 \times 1000 t + 0)$$

1000 Hz \implies 12 cycles in 12 milliseconds.



$$y = 1.00 \sin(360 \times 1250 t + 180)$$

1250 Hz \implies 15 cycles in 12 milliseconds.



$$y = 1.0 \sin(360 \times 1000 t + 0) + 1.0 \sin(360 \times 1250 t + 180)$$

250 Hz \implies 3 cycles in 12 milliseconds.