Math 155 - Identifying Oscillating Functions

The usual cosine function $f(t) = \cos(t)$.

A cosine function that has been shifted horizontally and vertically.

$$f(t) = A + B \cos \left( \frac{2\pi}{T} (t - \phi) \right) = \cos(t)$$
A cosine function that has been scaled horizontally and vertically.

\[ f(t) = A + B \cos \left( \frac{2\pi}{T} (t - \phi) \right) \]

A cosine function that has been both shifted and scaled.

\[ f(t) = A + B \cos \left( \frac{2\pi}{T} (t - \phi) \right) \]