Time Shift:

\[ 3 \varphi (t-2) \]

F.T. \( \Rightarrow (12 \sin \frac{2\pi}{T}) \cdot e^{-j\omega_2} \)

Time shift \( t_d \Rightarrow \) Linear phase shift \(-\omega t_d\) :

Time scaling: Expanding/contracting in one domain has the opposite effect in the other domain.

Example: Let \( x(t) \) be a signal from an audio tape. What if play tape faster or slower?

- Play at normal speed
- Play at 2x speed
- Play at 1/2x speed