**TOOL:** For convolution, time shifting one of the function causes the same time shift of the convolution. Time shifts of both functions causes a sum of the time shifts in the convolution. That is, the time shifts are additive:

$$f(t-a) * g(t-b) = [f(t) * g(t)]\Big|_{t\,=\,t\,-\,(a\,+\,b)}.$$

Note: $t = t - (a + b)$ means $t$ is replaced by $t - (a + b)$.

Note: A time shift that is negative causes a function to move to the right by that amount. Equivalently, $f(t - a)$ is $f(t)$ with the origin moved to $a$.