

**Question #1:** Determine the continuous-time Fourier transform (CTFT) or inverse CTFT for the following equations. Use the continuous-time transform tables on the course website.

(a)  $x(t) = u(t + 2) - u(t - 2)$

(b)  $x(t) = u(t) - u(t - 4)$

(c)  $x(t) = e^{-t}u(t - 1) * e^{-2t}u(t)$

(d)  $X(\Omega) = j\pi [\delta(\Omega - \pi/3) - \delta(\Omega + \pi/3)]$