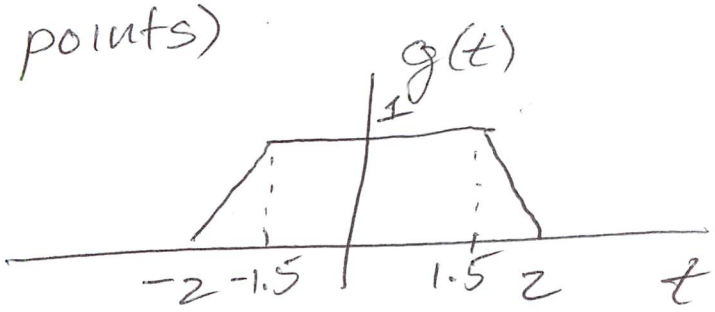
ECE 312 HW #1

Turn in not later than Noon on July 5th. Be sure to have it timestamped

(1) (3 points)



(a) plot $g(2t)$

(b) plot $g(t-1)$

(c) plot $g\left(\frac{t-2}{4}\right)$

(2) use the Euler identities to prove (2 points)

$\sin(x)$ is the anti-derivative of $\cos(x)$

(3) (2 points) Let $x(t) = e^{j\omega_0 t}$; $\omega_0 \neq 0$

find the fundamental period

(4) (3 points) Let $x(t) = t\,u(t)$

is this signal an energy signal, a power signal or neither? (justify)