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17/ENG061022

MECHANICAL ENGINEERING

ASSIGNMENT 3

- ① Command window
- ② Clear
- ③ Clc
- ④ Close all
- ⑤ Syms t
- ⑥ $V = 110 + \cos(120 * \pi * t)$
- ⑦ $C = 100$
- ⑧ $q = C * V$
- ⑨ $i = diff(q)$
- ⑩ $P = i * V$
- ⑪ $t = 0:0.01:0.35$
- ⑫ $V_n = \text{subs}(V)$
- ⑬ $V_n = \text{double}(V_n)$
- ⑭ $I_n = \text{subs}(i)$
- ⑮ $I_n = \text{double}(I_n)$
- ⑯ $P_n = \text{subs}(P)$
- ⑰ $P_n = \text{double}(P_n)$
- ⑱ $\text{Plot} = (t, V_n)$
- ⑲ Hold on
- ⑳ $\text{Plot}(t, I_n)$
- ㉑ Hold on
- ㉒ $\text{Plot}(t, P_n)$
- ㉓ Legend("Voltage (V)", "Current (A)", "Power (W)")
- ㉔ Grid on
- ㉕ Grid minor