

ME 1028 (06-1)

HW#3

Due on Monday, Sep. 26th

Name

For the figure shown below,

- (1) Write singularity functions of $V(x)$, $M(x)$, $\theta(x)$, and $y(x)$ by using CAE tools (MathCAD, Matlab, Mathematica, or Maple, etc.)
- (2) Determine shear force, moment, slope and deflection when $x = 4.321$ m
- (3) Determine shear force, moment, slope and deflection when $x = 6.543$ m
- (4) Plot $V(x)$ vs. x , $M(x)$ vs. x , $\theta(x)$ vs. x , and $y(x)$ vs. x

Given: $E = 200 \times 10^9$ (N/) and $I = 6 \times 10^{-3}$ (m⁴)

