

Topic

Shear and Bending Moment Diagrams

Governing Equations and Assumptions

$$\sum F = 0, \sum M = 0$$

Max or min values $\frac{dy}{dx} = 0$

Process

- ① Determine the support reactions
- ② Determine the number of segments
=> Change in the external forces
- ③ Solve for the internal shear force and bending moment in terms of a distance x from either end of the beam for each segment
- ④ Plot the functions of x , and determine the minimum and maximums