

ANSYS - Cantilever Beam

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Problem Specification

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Cantilever Beam

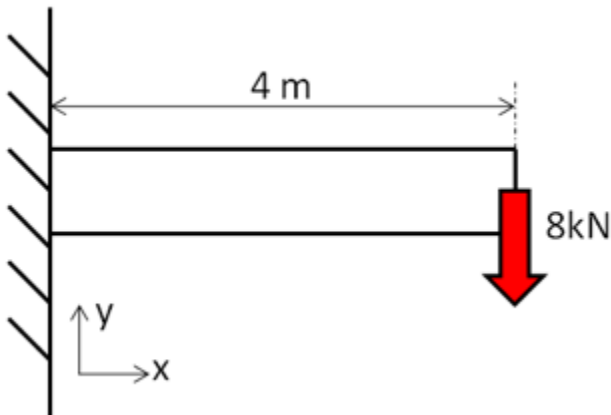
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Problem Specification

Consider the beam in the figure below. It is clamped on the left side and has a point force of 8kN acting downward on the right end of the beam. The beam has a length of 4 meters, width of 0.346 meters and height of 0.346 meters (cross-section is a square). Additionally, the beam is composed of a material which has a Young's Modulus of 2.8×10^{10} Pa. Using ANSYS, calculate the following:

1. Deformation of the beam
2. Maximum bending stress along the beam
3. Bending moment along the beam



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