

Cantilever Beam - Geometry

Author: John Singleton, Cornell University

[Problem Specification](#)

[1. Pre-Analysis & Start-Up](#)

[2. Geometry](#)

[3. Mesh](#)

[4. Physics Setup](#)

[5. Numerical Solution](#)

[6. Numerical Results](#)

[7. Verification & Validation](#)

[Exercises](#)

[Comments](#)

Geometry

The following videos use the legacy geometry engine, DesignModeler. Please see [this page](#) of the EdX course for updated instructions using the new geometry engine, SpaceClaim.

Sketch the Midline

Specify Moment of Inertia

Check Your Understanding

Select the correct option below.

Consider the case where we replace our square cross-section in ANSYS with a different cross-section that has a lower cross-sectional area but the same moment of inertia. How is the total potential energy of the beam affected?

It:

1. Decreases
2. Stays the same
3. Increases

[Go to Step 3: Mesh](#)

[Go to all ANSYS Learning Modules](#)