

# 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](#)