Beam with point loading

Consider a steel beam with a point load at one end.

1. Sketch the 2D geometry and create a **part** representing the frame.
    a. ∅ 20 cm
    b. L= 200 cm
2. Define the **material** properties and **section** properties of the frame.
    a. $E = 2 \times 10^{11}$PaYoung's modulus
    b. $\nu = 0.26$ Poisson's ratio
    c. $\rho = 7.8 \times 10^{3}$ Density
3. **Assemble** the model.
4. Configure the **analysis procedure** and **output requests**.
5. Apply **loads** and **boundary conditions** to the frame.
    a. Encastre one side at step zero.
    b. Apply a uniformly distributed pressure on the other side.
6. **Mesh**the frame using default parameters.
7. Create a **job** and submit it for **analysis**.
8. View the results of the analysis in **postprocessing**.
    a. Plot the field output results.
    b. Create a view cut by isosurface of stress. Show the resultant force and moment along that view cut.