

CIV102F Quiz # 9: Friday AM November 27, 2020
Shear Stresses and Deflections

A beam is formed by gluing two pieces of timber together as shown below. The beam is simply supported over a span of 8 m and supports two point loads.

- (a) Calculate and draw the shear force and bending moment diagrams, labeling all important values.
- (b) Calculate the maximum shear stress in the beam, as well as the maximum shear stress in the glue.
- (c) Determine the mid-span deflection. Assume $E = 10,500 \text{ MPa}$.

