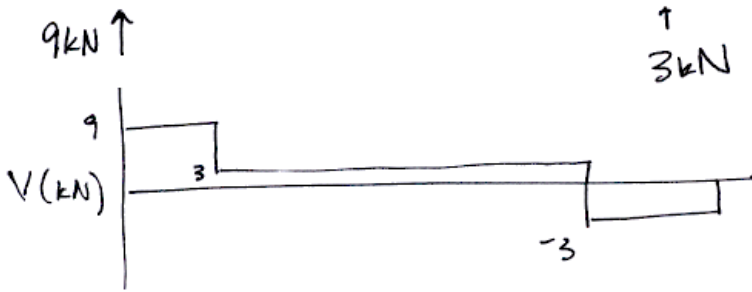
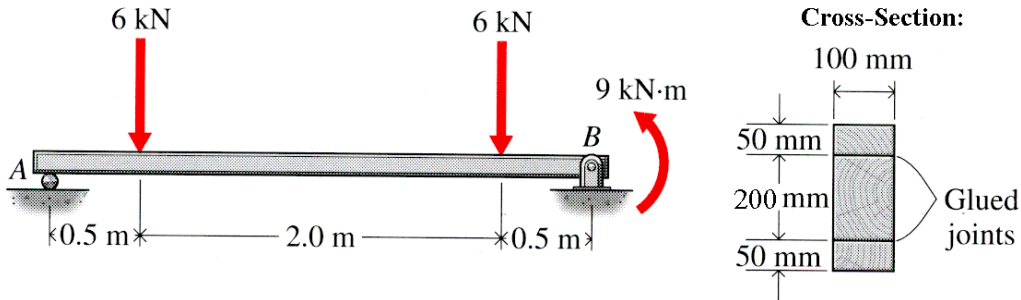


A beam is composed of three pieces of timber that are glued together as shown. Find the **maximum horizontal shearing stress** in the wood.

Show all work. Write your final answer in the box at the bottom of the page.

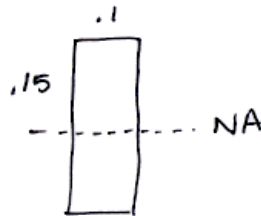


$$V = V_{max} = 9000$$

$$Q = \bar{y} \Sigma A = (.15/2)(.15 \times .1)$$

$$I = \frac{1}{12} b h^3 = \frac{1}{12} (.1)(.3^3)$$

$$b = .1$$



$$\tau = \frac{VQ}{Ib} = \frac{9000 (.075)(.1)(.15)}{(\frac{1}{12})(.1)(.3^3)(.1)} = 450,000 \text{ Pa}$$

$\tau_{max} =$