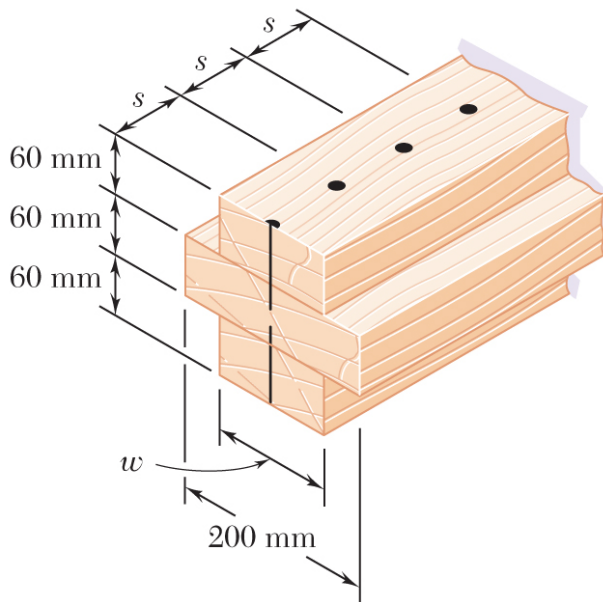


### CVEN 305 Honors - Homework #09

- 1) **For Problem 1**, Three wooden boards are nailed together to form a beam as shown. Write a computer program that can be used to solve for the maximum shear force that can be applied to the beam for a given nail spacing and allowable shear stress. The dimensions (height and width) for each wooden board should be entered as a variable into the program (note, the height is shown as 60 mm below and the width for the middle board is 200 mm, but both should be variable). You may check your program by solving the problems given by McGraw-Hill Connect.

Copyright © McGraw-Hill Education. Permission required for reproduction or display.



- 2) **For Problem 2**, Modify the program for part 1 so that it will calculate the shear force per nail and the maximum shearing stress in the beam for a given shear force ( $V$ ), number of nails ( $n$ ) along the shear plane, and nail spacing ( $s$ ). You may check your program by solving the problems given by McGraw-Hill Connect.