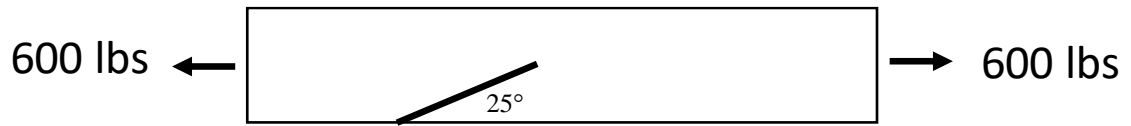
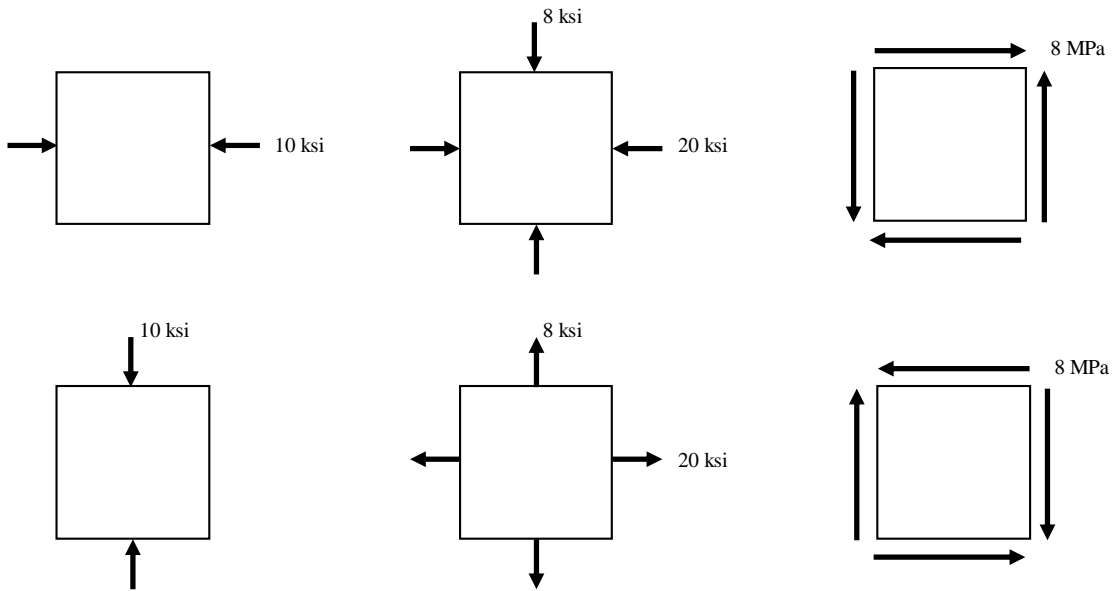


1. Why do we need to transform stresses? What is the importance of principal stresses?
2. List the pros and cons for using the stress transformation equations vs Mohr's Circle.
3. The grains of wood in a board make an angle of 25° with the horizontal as shown. Determine the normal and shear stresses that act perpendicular and parallel to the grains if the board is subjected to an axial load of 600 lbs.



4. Draw Mohr's circle for each of the following stress states.



5. Use Mohr's Circle on the points below to:
 - a. Determine the principal stresses.
 - b. Determine the maximum in-plane shear stress.
 - c. Determine the maximum shear stress.
 - d. Determine the normal stress and shear stress acting on the inclined planes.

