1-9. A wooden board is subject to a load $F \sim N(260,12^2)\,\text{N}$. The grains of the wood have an angle of $30°$ as shown in the figure. Determine the distributions of the normal and shear stress that act perpendicular and parallel to the grains. (**Ans.** $\tau_{x'y'} \sim N(-90.06, -4.16^2)\,\text{kPa}$)