5-1. A shear force $V \sim N\left(16, 1.5^2\right)$ kip is applied to a member with the cross section as shown. If the allowable shear stress is $\tau_a \sim N\left(4.5, 0.3^2\right)$ ksi, determine the probability of failure of the member. Assume that τ_a and V are independent. (**Ans.** $p_f = 5.9 \times 10^{-5}$)