1-13. A normally distributed weight $W \sim N \left(3000, 350^2\right)$ lb is suspended by two nearly parallel cables. Cable AB has length $L_{AB} = 30$ in and cable CB has a length $L_{CB} = 40$ in. The resistance of the cable is $T_{\rm max} \sim N \left(3000, 350^2\right)$ lb. What is the probability of failure?

(**Ans.**
$$p_f = 7.1268(10^{-4})$$
)

