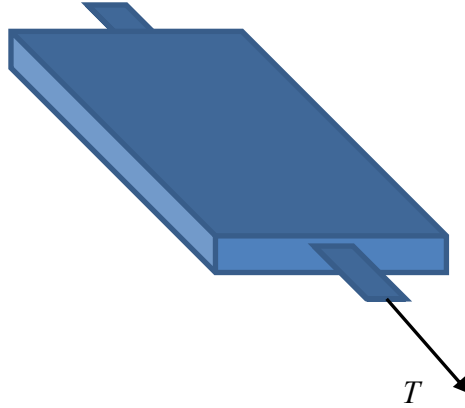


1. A random force  $T \sim N(1.15, 0.015^2)$  lb is applied to pull a bookmark with a width of 1 in. The weight of the book is  $W \sim N(10, 0.1^2)$  lb, and the coefficient of static friction between the bookmark and the paper is  $\mu_s=0.65$ . If the pages are 6 in. by 8 in., determine the probability the bookmark will start to move out. Assume the pressure on each page and the bookmark is uniform.



Answer:  $P=0.9998$