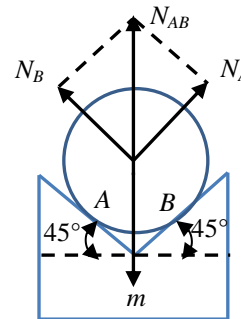
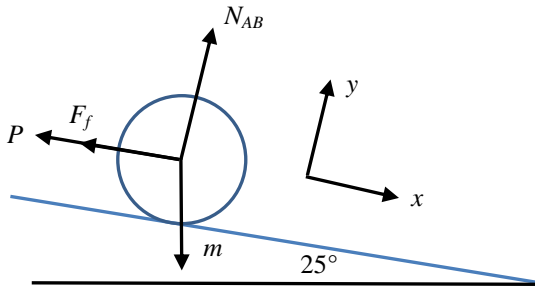
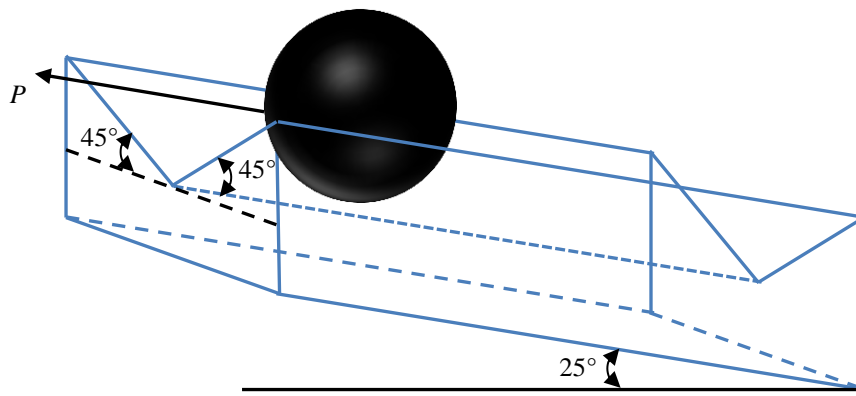


9. A ball with a weight of  $m \sim N(20, 0.1^2)$  kg is placed between the  $45^\circ$  grooves  $A$  and  $B$  of the  $25^\circ$  incline. Determine the probability that the external force  $P \sim N(9, 0.05^2)$  N which is independent from  $m$  may hold the ball up from slipping if the coefficient of friction between the ball and groove is  $\mu_s = 0.3$ .



**Answer:**

The probability that the external force  $P$  can hold the ball is 99.66%.