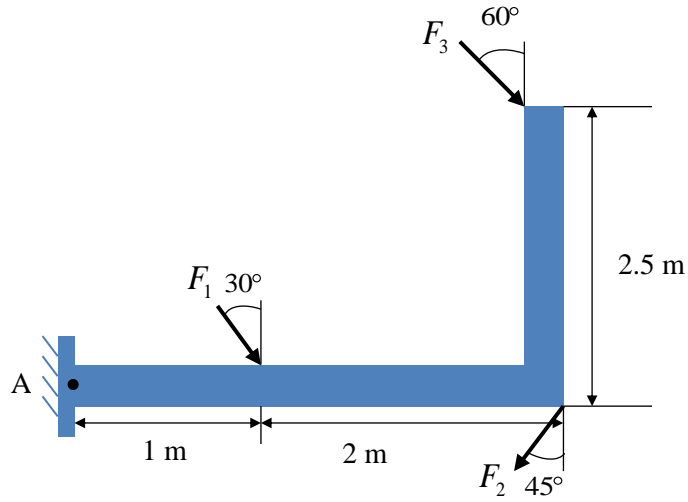


9.  $F_1$ ,  $F_2$ , and  $F_3$  are normally and independently distributed and their distributions are  $F_1 \sim N(450, 6^2)$  N,  $F_2 \sim N(550, 5^2)$  N, and  $F_3 \sim N(700, 7^2)$  N, respectively. Determine the distribution of the resultant moment about point A.



Solution

The distribution of  $M_A$  is:  $M_A \sim N(4122, 219^2)$  N·m

**Ans.**