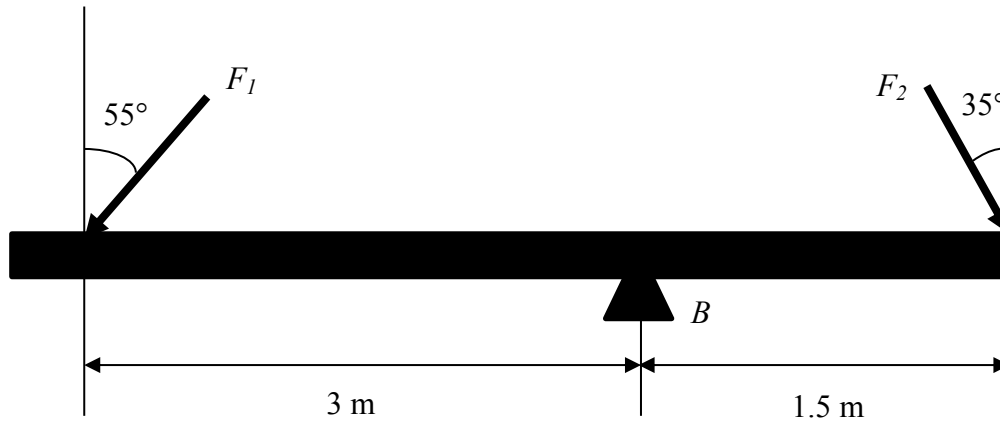**7.** F_1 and F_2 are independently and normally distributed with $F_1 \sim N(1000,12^2)$ N and $F_2 \sim N(800,6^2)$ N , respectively, determine the distribution of the moment at point B.

Solution: The distribution is $M_B \sim N(737.75,21.93^2)$ N·m , anticlockwise. **ANS**