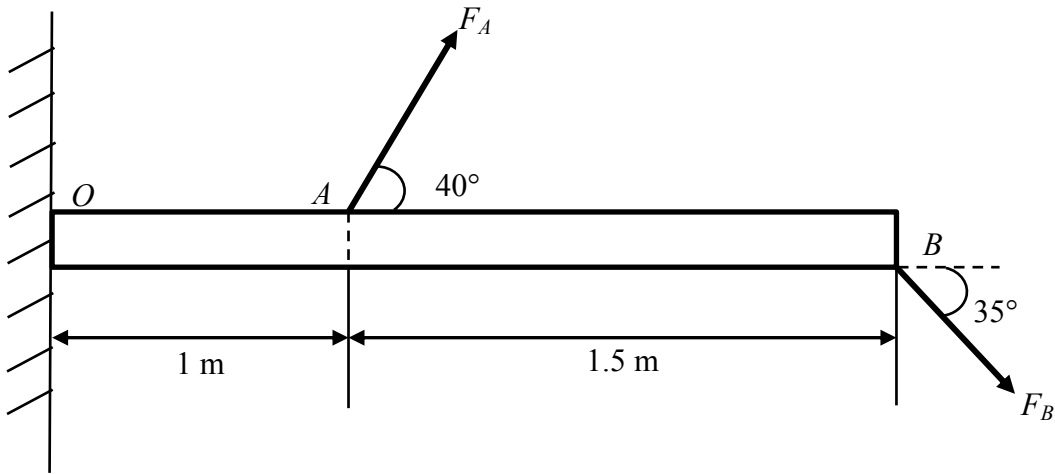


6. Determine the distribution of the resultant moment acting on the beam at  $O$ . The two forces are normally and independently distributed with  $F_A \sim N(25, 2^2)$  N and  $F_B \sim N(100, 4^2)$  N.



Answer:  $M_O \sim N(-127.32, 5.88^2)$  N·m, anticlockwise