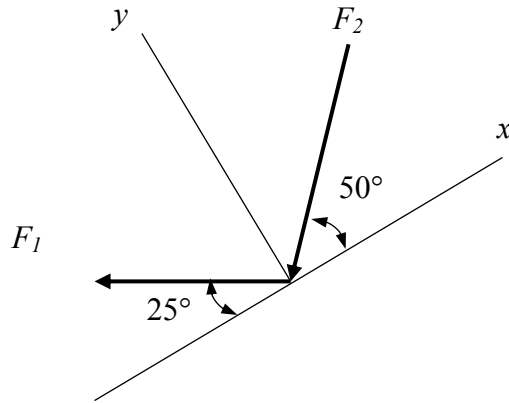


4. Two Forces are independently and normally distributed with  $F_1 \sim N(800, 10^2)$  N and  $F_2 \sim N(500, 7^2)$  N, respectively. Determine the resultant forces in  $x$  and  $y$  axes.



Solution:  $F_x \sim N(-1046.4, 10.1^2)$  N and  $F_y \sim N(-44.9, 6.8^2)$  N. (Ans.)