



# Probability Assignment -I

Nikhil Nair

## I. PROBLEM

Given that E and F are events such that  $\Pr(E) = 0.6$ ,  $\Pr(F) = 0.3$  and  $\Pr(EF) = 0.2$ , find  $\Pr(E | F)$  and  $\Pr(F | E)$ .

## II. SOLUTION

$$\Pr(E|F) = \frac{\Pr(EF)}{\Pr(F)} = \frac{0.2}{0.3} = \frac{2}{3} \quad (1)$$

$$\Pr(F|E) = \frac{\Pr(EF)}{\Pr(E)} = \frac{0.2}{0.6} = \frac{1}{3} \quad (2)$$