

Assignment 1

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Download all python codes from

<https://github.com/spdanda/Probability-and-Random-variables/blob/main/Assignment1/codes/Assignment1.py>

and latex - tikz codes from

<https://github.com/spdanda/AI1103/blob/main/Assignment1.tex>

Problem 1.18 :

Two players, Sangeeta and Reshma, play a tennis match. It is known that the probability of Sangeeta winning the match is 0.62. What is the probability of Reshma winning the match?

Solution :

Let X be an event in which Sangeeta wins and Y be an event in which Reshma wins.

$\Rightarrow X+Y = 1$ (\because Either of them wins the match, assuming that there is no draw between them).

$$\therefore \Pr(X+Y) = 1$$

$$\Rightarrow \Pr(X) + \Pr(Y) = 1$$

$$\because XY = 0$$

$$\Rightarrow \Pr(Y) = 1 - \Pr(X)$$

$$= 1 - 0.62$$

$$= 0.38$$

