

Assignment 8

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Python code link: <https://github.com/ParvezAlam123/Assignment-8>

1 Gate Problem 2 :

There are 3 red socks , 4 green socks and 3 blue socks. You choose 2 socks. The probability that they are of the same colour is ?

Solution:

A	Event for red chosen socks
B	Event for green chosen socks
C	Event for blue chosen socks
E	event of chosen socks having same colour

$$P(A) = \frac{{}^3C_2}{{}^9C_2} = \frac{3}{36}$$

$$P(B) = \frac{{}^4C_2}{{}^9C_2} = \frac{6}{36}$$

$$P(C) = \frac{{}^3C_2}{{}^9C_2} = \frac{3}{36}$$

$$\begin{aligned} P(E) &= P(A) + P(B) + P(C) \\ &= \frac{3}{36} + \frac{6}{36} + \frac{3}{36} \\ &= \frac{12}{36} \\ &= 0.333 \end{aligned}$$