

# Assignment

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Question 11.16.3.29 If  $M$  and  $N$  are any two events, the probability that at least one of them occurs is

- 1)  $\Pr(M) + \Pr(N) - 2\Pr(MN)$
- 2)  $\Pr(M) + \Pr(N) - \Pr(MN)$
- 3)  $\Pr(M) + \Pr(N) + \Pr(MN)$
- 4)  $\Pr(M) + \Pr(N) + 2\Pr(MN)$

**Solution:** The Probability that at least one of them occurs is  $\Pr(M + N)$  and

$$\Pr(M + N) = \Pr(M) + \Pr(N) - \Pr(MN) \quad (1)$$