1. Show that https://www.ipjugaad.com/image/5ca0dcebe3
2. A random variable x has the following probability function

https://www.ipjugaad.com/image/5ca0dda6bf

find the value of k.

1. The expected value of a random variable x is 2 and its variance is 1.Find the variance of 3x+4.
2. For a normally distributed variable with mean 1 and S.D 3, find the probability that https://www.ipjugaad.com/image/5ca0de4556
3. If X and Y are independent binomial variables such that X-b(5, 1/2),https://www.ipjugaad.com/image/5ca0de9369  (7, 1/2). Find P [X+Y=3).
4. Events A and B are such that

https://www.ipjugaad.com/image/5ca0df46ad

1. A bag containts 40 tickets numbered 1,2,3,.,40 of which four are drawn at random and arranged in ascending order https://www.ipjugaad.com/image/5ca0dfa531 Find the probability of t3 being 25.
2. The probability that Nirmal will solve a problem is 2/3 and the probability that Satyajit will solve it is https://www.ipjugaad.com/image/5ca0dfd810 What is the probability that (i) the problem will be solved (b) neither can solve it.
3. The content of three urns are: 1 white, 2 red, 3 green balls; 2 white, 1 red, 1 green balls and 4 white, 5 red, 3 green balls. Two balls are drawn from an urn chosen at random. These are found to be one white and one green. Find the probability that the balls so drawn come from the third urn.
4. For what value of n is https://www.ipjugaad.com/image/5ca0e024a0
5. If the moment generating function of normal distribution is

https://www.ipjugaad.com/image/5ca0e04cb9

1. Find https://www.ipjugaad.com/image/5ca0e0a749  and variance for the following distribution.

https://www.ipjugaad.com/image/5ca0e0c46c