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# **Assignment 4**

# **Question 1**

***Suppose arrival delays of flights belonging to “AA” are normally distributed with mean 15   minutes and standard deviation 3 minutes. If the “AA” plans to announce a scheme where it   will give 50% cash back if their flights are delayed by 20 minutes, how much percentage of   the trips “AA” is supposed to loose this money.***

pnorm(20, mean=15, sd=3 )

pnorm() has been used to calculate the percentage of trips. Pnorm() is a normal probability distribution function best suited to resolve the given question.

# **Question 2**

***Assume that 65% of flights are diverted due to bad weather through the Weather System.    What is the probability that in a random sample of 10 flights, 6 are diverted through the Weather System?***

dbinom(6, size=10,0.65)

The given question could be resolved using the binomial distribution in probability. This question can be resolved using Dbinom(), an inbuilt function for calculating the binomial distribution.

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