1. # Ans : A probability distribution describes how a random variable is distributed,it tells us which values a random

# variable is most likely to take on and which values are less likely.Based on the previous data and the

# occurences of the random event, we can predict the outcome in terms of probabilities.

2. # Ans : The difference between true random number(TRN) and pseudo-random number(PRN), is that TRN's are unpredictable

# physical values means (like atmospheric noise), and PRN are generated using mathematical algorithms (completely

# computer-generated).The PRN's are good enough as they follow a uniform distribution and the seed for generating

# PRN is unpredictable and unknown.

3. # Ans : A normal distribution is determined by two parameters the mean and the variance. A normal distribution with a

# mean of 0 and a standard deviation of 1 is called a standard normal distribution.

4. # Ans : A fair rolling of dice is also a good example of normal distribution.

5. # Ans : When trails are less, the variance will large. As the number of trials increase , the variance will reduce.

6. # Ans : random.shuffle can used to shuffle list object

7. # Ans : The general categories of math package are

# 1) Trigonometric functions

# 2)Quadratic functions

# 3)Exponential functions

# 4)Hyperbolic functions

# 5)Periodic functions

# 6)Arithmetic functions

# 7)Logarithimic functions

# 8)Conversions to Integer

8. # Ans : The exponential function is given by ƒ(x) = ex, whereas the logarithmic function is given by g(x) = ln x, and

# former is the inverse of the latter.

9. # Ans : 1)log2(x) - logarithmic value of x to base 2

# 2)log10(x) - logarithmic value of x to base 10

# 3)log(x,base) - logarithmic value of x to base. If only first parameter is given , it computes its

# value tp base e,natural logarithm

# 4)log1p(x) - natural logarithm (base e) value of 1+x