> #to read a csv file from excel

> data=read.csv(file.choose(),header=T)

> data

X. State ratio child.ratio ratio.1 child.ratio.1

1 - India 943 919 933 927

2 1 Kerala 1084 964 1058 960

3 2 Puducherry 1037 967 1001 967

4 3 Tamil Nadu 996 943 987 942

5 4 Andhra Pradesh 993 939 978 961

6 5 Chhattisgarh 991 969 989 975

7 6 Meghalaya 989 970 972 973

8 7 Manipur 985 930 974 957

9 8 Orissa 979 941 972 953

10 9 Mizoram 976 970 935 964

11 10 Goa 973 942 961 938

12 11 Karnataka 973 948 965 946

13 12 Himachal Pradesh 972 909 968 896

14 13 Uttarakhand 963 890 962 908

15 14 Tripura 960 957 948 966

16 15 Assam 958 962 935 965

17 16 West Bengal 950 956 934 960

18 17 Jharkhand 948 948 941 965

19 18 Lakshadweep 946 911 948 959

20 19 Arunachal Pradesh 938 972 893 964

21 20 Nagaland 931 943 900 964

22 21 Madhya Pradesh 931 918 919 932

23 22 Maharashtra 929 894 922 913

24 23 Rajasthan 928 888 921 909

25 24 Gujarat 919 890 920 883

26 25 Bihar 918 935 919 942

27 26 Uttar Pradesh 912 902 898 916

28 27 Punjab 895 846 876 798

29 28 Sikkim 890 957 875 963

30 29 Jammu and Kashmir 889 862 892 941

31 30 Haryana 879 834 861 819

32 31 Andaman and Nicobar Islands 876 968 846 957

33 32 Delhi 868 871 821 868

34 33 Chandigarh 818 880 777 845

35 34 Dadra and Nagar Haveli 774 926 812 979

36 35 Daman and Diu 618 904 710 926

> names(data)

[1] "X." "State" "ratio" "child.ratio" "ratio.1" "child.ratio.1"

> #mean

> mean = mean(data$ratio)

> cat("the mean of sex ratio is",mean)

the mean of sex ratio is 931.3611

> #median

> median = median(data$ratio)

> cat("the median of sex ratio is",median)

the median of sex ratio is 944.5

> #standard deviation

> standard\_deviation = sd(data$ratio)

> cat("the standard deviation of sex ratio is",standard\_deviation)

the standard deviation of sex ratio is 78.61339

> #variance

> variance = var(data$ratio)

> cat("the vaiance of sex ratio is",variance)

the vaiance of sex ratio is 6180.066

> #skewness

> numerator = 3\*(mean-median)

> value = numerator/standard\_deviation

> cat("the skewness value is",value)

the skewness value is -0.5013989

> #mean deviation

> mean = mean(data$ratio)

> column = data$ratio - mean

> mean\_dev = mean(column)

> cat("the mean deviation value of sex ratio is",mean\_dev)

the mean deviation value of sex ratio is 2.526991e-14

> #geometric mean

> geo\_mean <- function(data){

+ log\_data <- log(data)

+ gm<- exp(mean(log\_data[is.finite(log\_data)]))

+ return(gm)

+ }

> geometric\_mean = geo\_mean(data$ratio)

> cat("the geometric mean value of sex ratio is",geometric\_mean)

the geometric mean value of sex ratio is 927.6883

> #range

> range\_value = range(data$ratio)

> cat("the range value of sex ratio is",range\_value)

the range value of sex ratio is 618 1084

> #nth percentile

> ratio = data$ratio

> percentile = quantile(ratio, c(.32, .58, .92))

> cat("the percentile value of sex ratio is",percentile)

the percentile value of sex ratio is 920.8 952.4 993.6

> #first and second quartile

> first = quantile(data$ratio,0.25)

> second = quantile(data$ratio,0.5)

> cat("the first and second quartile value of sex ratio is",first,second)

the first and second quartile value of sex ratio is 907.75 944.5

> #quartile deviation

> first = quantile(data$ratio,0.25)

> third = quantile(data$ratio,0.75)

> quartile\_deviation = (third-first)/2

> cat("the quartile deviation value of sex ratio is",quartile\_deviation)

the quartile deviation value of sex ratio is 33

> #any two deciles

> first = quantile(data$ratio,0.1)

> second = quantile(data$ratio,0.2)

> cat("the two deciles value of sex ratio is",first,second)

the two deciles value of sex ratio is 872 890

> #sum of column values

> sum = sum(data$ratio)

> cat("the sum of values of sex ratio is",sum)

the sum of values of sex ratio is 33529

> #minimum of column values

> minimum = min(data$ratio)

> cat("the minimum values of sex ratio is",minimum)

the minimum values of sex ratio is 618

> #maximum of column values

> maximum = max(data$ratio)

> cat("the maximum values of sex ratio is",maximum)

the maximum values of sex ratio is 1084

> #armonic mean

> col = data$ratiosum = 0

> for(i in col){

+ val = (1/i)

+ sum = sum+val

+ }

> numerator = length(data$ratio)

> harmonic\_mean = (numerator/sum)

> cat("the harmonic mean is",harmonic\_mean)

the harmonic mean is 0

> #to find binomial distribution

> #n=275, p=0.5

> dbinom(20,275,0.5)

[1] 2.041116e-53

> sum(dbinom(20:25,30,0.5))

[1] 0.04933884

> #cdf

> pbinom(20,30,0.5)

[1] 0.978613