

#mean

```
> data=read.csv("D:/crop_production.csv")  
> mean=mean(data$Area)  
> cat("the mean value of Area is",mean)  
the mean value of Area is 12002.82>
```

#median

```
> median=median(data$Area)  
> cat("the median value of Area is",median)  
the median value of Area is 582>
```

**#standard deviation**

```
standard_deviation=sd(data$Area)  
cat(" the standard deviation value od Area  
is",standard_deviation)  
the standard deviation value od Area is 50523.4>
```

**#Variance**

```
variance = var(data$Area)
```

```
cat("The variance value of Area is ",variance)
```

```
The variance value of Area is 2552614354>
```

```
#skewness
```

```
numerator = 3*(mean-median)
```

```
value = numerator/standard_deviation
```

```
cat("The skewness value is ",value)
```

```
The skewness value is 0.6781503
```

```
#Mean Deviation
```

```
mean = mean(data$Area)
```

```
column = data$Area - mean
```

```
mean_dev = mean(column)
```

```
cat("The mean deviation value of Area is  
",mean_dev)
```

```
The mean deviation value of Area is  
1.10592e-12>
```

```
#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$Area)  
cat("The Geometric Mean value of Area is  
",geometric_mean)
```

**#Range**

```
range_value = range(data$Area)  
cat("The Range value of Matches is  
",range_value)
```

```
The Range value of Matches is 0.04 8580100>
```

**#nth Percentile**

```
Area= data$Area  
percentile = quantile(Area, c(.32, .57, .98))  
cat("The percentile value of Area is  
",percentile)
```

```
The percentile value of Area is 143 1000  
137400>
```

**#First and Second Quartile**

```
first = quantile(data$Area,0.25)
```

```
second = quantile(data$Areas,0.5)
```

```
cat("The First and Second Quartile values are  
",first,second)
```

```
The First and Second Quartile values are    80  
NA>
```

```
#Quartile Deviation
```

```
first = quantile(data$Area,0.25)
```

```
third = quantile(data$Area,0.75)
```

```
Quartile_Deviation= (third-first)/2
```

```
cat("The Quartile Deviation value of Matches is  
",Quartile_Deviation)
```

```
The Quartile Deviation value of Matches is  
2156>
```

```
#Any two deciles
```

```
first = quantile(data$Area,0.1)
```

```
second = quantile(data$Area,0.2)
```

```
cat("The two deciles value of Area is  
",first,second)
```

**The two deciles value of Area is 12 48>**

**#sum of column values**

**sum = sum(data\$Area)**

**cat("The sum of values of Area column is  
",sum)**

**The sum of values of Area column is  
2953786189>**

**#Minimum of column values**

**Minimum = min(data\$Area)**

**cat("The Minimum values of Area column is  
",Minimum)**

**The Minimum values of Area column is 0.04>**

**#Maximum of column values**

**Maximum = max(data\$Area)**

```
cat("The Maximum values of Area column is  
",Maximum)
```

```
The Maximum values of Area column is  
8580100>
```

```
#Harmonic Mean
```

```
col = data$Area
```

```
sum=0
```

```
for(i in col){
```

```
val = (1/i)
```

```
sum = sum + val
```

```
}
```

```
numerator = length(data$Area)
```

```
harmonic_mean = (numerator/sum)
```

```
cat("The harmonic mean is ",harmonic_mean)
```

```
The harmonic mean is 22.02765>
```

