

CASE STUDY 1

**TATA MOTORS CLOSING
PRICE**

TATA MOTORS CLOSING PRICE DATA WITH Z SCORES

Date	close	Z Score
6-Jan-20	185.65	1.183864
3-Jan-20	191.1	1.458438
2-Jan-20	193.75	1.591947
1-Jan-20	184.45	1.123407
#####	185.15	1.158673
#####	183.7	1.085621
#####	176.15	0.705248
#####	174.6	0.627158
#####	175.5	0.6725
#####	176.05	0.70021
#####	175.95	0.695172
#####	179.15	0.85639
#####	174.8	0.637234
#####	180.2	0.909289
#####	174.95	0.644791
#####	176.7	0.732957
#####	173.35	0.564182
#####	161.8	-0.01771
#####	159.7	-0.12351

9-Dec-19	160.5	-0.08321
6-Dec-19	161.5	-0.03283
5-Dec-19	166.1	0.198922
4-Dec-19	169.4	0.365178
3-Dec-19	158.2	-0.19908
2-Dec-19	161.05	-0.0555
#####	161.5	-0.03283
#####	164.8	0.133427
#####	165.9	0.188846
#####	163.4	0.062895
#####	166.1	0.198922
#####	162.35	0.009995
#####	164.15	0.10068
#####	167.4	0.264417
#####	167.75	0.28205
#####	170.1	0.400445
#####	168.55	0.322355
#####	167.05	0.246784
#####	170.6	0.425635
#####	172	0.496168

8-Nov-19	169.05	0.347545
7-Nov-19	171.5	0.470978
6-Nov-19	174.5	0.62212
5-Nov-19	172	0.496168
4-Nov-19	172.2	0.506244
1-Nov-19	175.05	0.649829
31-Oct-19	177.7	0.783338
30-Oct-19	171.9	0.49113
29-Oct-19	172.45	0.518839
27-Oct-19	147.7	-0.72808
25-Oct-19	126.85	-1.77852
24-Oct-19	133.5	-1.44349
23-Oct-19	132.65	-1.48631
22-Oct-19	131.75	-1.53165
18-Oct-19	136.85	-1.27471
17-Oct-19	139.5	-1.1412
16-Oct-19	125.85	-1.8289
15-Oct-19	126.95	-1.77348
14-Oct-19	127.85	-1.72814
11-Oct-19	121.3	-2.05813
10-Oct-19	116.8	-2.28484
9-Oct-19	120.9	-2.07828
7-Oct-19	117.5	-2.24958

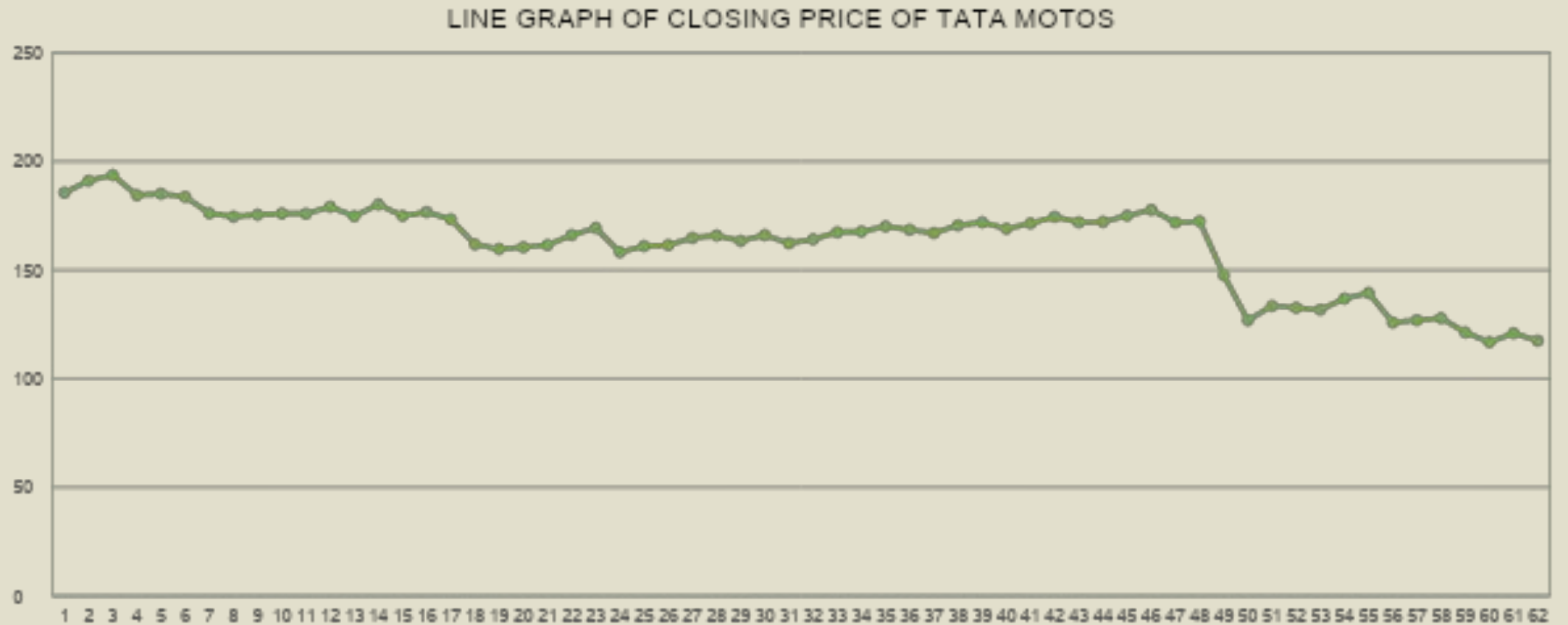
SUMMARIZATION

CENTRAL TENDENCY	
mean	162.15
median	168.15
mode	161.50
trimmed mean	162.38
harmonic mean	159.40
95% upper mean	162.25
95% lower mean	162.05

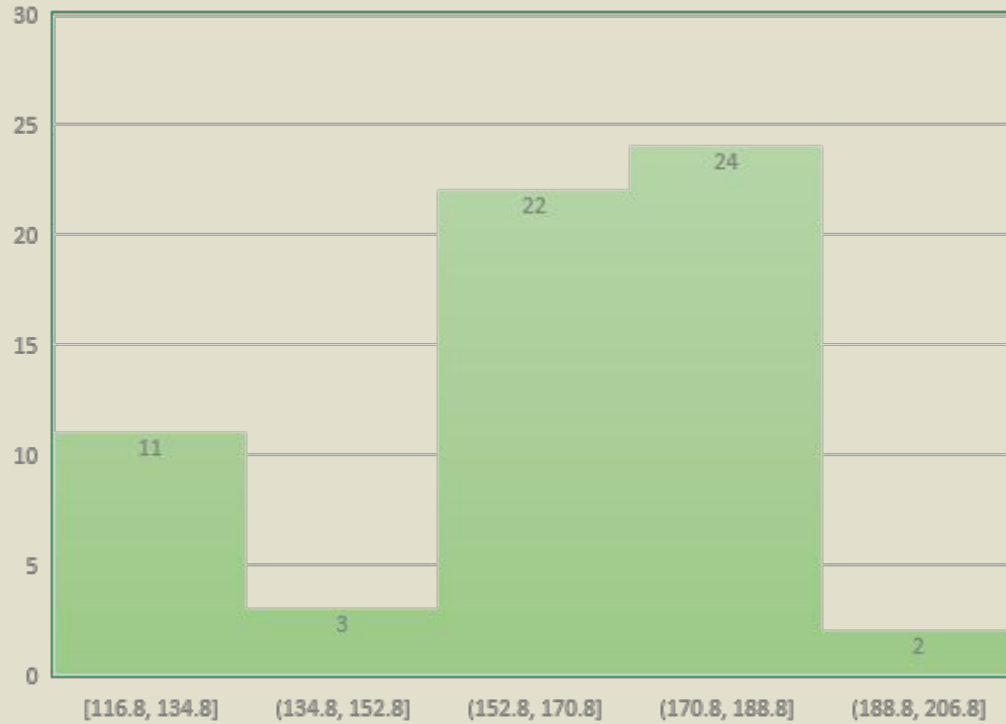
DISPERSIONS	
standard deviation	19.85
standard error	2.52
variance	393.98
cv	0.12
DQ	0.98
minimum	116.8
maximum	193.75
range	76.95

There is a 98% quality in this data due to which the data is considered to be almost accurate

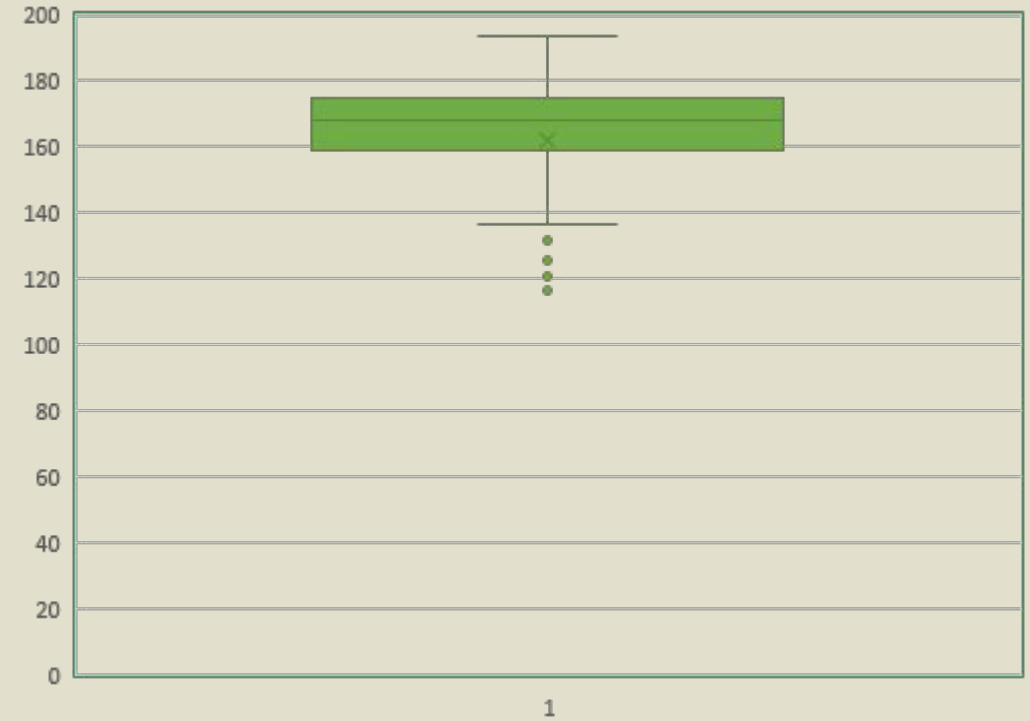
VISUALIZATION



HISTOGRAM OF CLOSING PRICE OF TATA MOTORS



BOX PLOT OF CLOSING PRICE OF TATA MOTORS



This data has only four outliers as observed in the values of Z score and box plot. On maximum number of days the closing price is in between 170.8 and 188.8.