

Final Exam
Statistic Computation

- a) Weekly sales, holiday flag, temperature, fuel_price, CPI, and unemployment
b) **Weekly sales**

Mean = 2094712.96

Median = 2073951.38

Standard Deviation = 266201.442

Variance = 70863207880.988

Holiday flag

Mean = 0.070

Median = 0

Standard Deviation = 0.26

Variance = 0.065

Temperature

Mean = 62.25

Median = 64.22

Standard Deviation = 16.18

Variance = 261.79

Fuel_Price

Mean = 3.22

Median = 3.29

Standard Deviation = 0.42

Variance = 0.17

CPI

Mean = 128.68

Median = 129.075

Standard Deviation = 1.86

Variance = 3.45

Unemployment

Mean = 5.96

Median = 5.95

Standard Deviation = 1.42

Variance = 2.02

c) **Fuel_Price**

Q1 = 2.76

Q2 = 3.29

Q3 = 3.59

IQR = 0.83

CPI

Q1 = 126.59

Q2 = 129.08

Q3 = 130.50

IQR = 3.91

Unemployment

Q1 = 4.61

Q2 = 5.95

Q3 = 7.13

IQR = 2.52

d) Variance = 0.065

e) No, the mean of weekly sales for each store is different

For example, store 1 has the mean of 1555264.40 while store 2 has the mean of 1925751.34

f) -

g) As can be referenced with number a, the highest mean is CPI in holiday week