Assignment 3

Q1] a) Mean of City A's temp = 94.57.
Mean of City B's temp = 86.14

b) Subtracting the mean from each value:

City A = [0.4, -1.5, 0.4, -0.5, 1.4, -0.5, 0.4]

City B = [3.8, -5.1, 8.8, 4.8, -0.1, -4.1, -8.1]

c) Squaring each value.

City A = [0.16, 2.25, 0.16, 0.25, 1.96, 0.25, 0.16]

City B = [14.4, 26.01, 77.44, 23.04, 0.01, 16.81, 65.61]

d) Average of each squared elements. Sunday 09

City A = [0.74] = VarianceA

City B = [31.89] = VarianceB.

e) standard dev:

City A = 0.86 degrees

City B = 5.64 degrees.

Looking at the obtained results, we can say that City A's forecasts are more reliable than City B.

Q2] a) Mean = 85.2.

b) Subtracting each element →

Score = [-0.2, 0.8, 14.8, -9.2, -4.2, 7.8, -1.2, 13.8, -14.2, -16.2, 7.8, -0.2, -4.2, 1.8, 3.8]

c) Squares →

Score = [0.04, 0.64, 219.04, 84.64, 17.64, 60.84, 1.44, 190.44, 201.64, 262.44, 60.84, 0.04, 17.64, 3.24, 14.44]

d) Mean of squares (Variance)

Variance = 75.6

e) Standard deviation = 8.7.

From the obtained standard deviation, it is known that all students are performing at the same level.

Q3] a) Mean = 8.4

b) differences:

[0.6, -1.4, 1.6, -0.4, 0.6, -1.4, -0.4, 0.6]

c) Squares: [0.36, 1.96, 2.56, 0.16, 0.36, 1.96, 0.16, 0.36]

d) Variance = 1.12

e) Standard deviation = 1.06.

From the standard deviation, ~~we know~~ the researcher knows that the result of the sample sizes are probably reliable.