INTERQUARTILE RANGE (IQR)

a) interquartile range. Compare the two interquartile range.
b) Any outliers in either set.

The five numbers summary for the day and night classes is

	Minimum	Q1	Median	Q3	Maximum
Day	32	56	74.5	82.5	99
Night	25.5	78	81	89	98

For Day:

IQR = Q3-Q1 = IQR = 82.5-56 = 26.5

In dataset IQR value for day is 26.5.

To find lesser outlier value:

Q1-1.5(IQR) = 56-1.5(26.5) = 16.25

In the day there is no lesser outlier is present because of lesser value is 16.25 so the value of minimum value 32 is not lesser than 16.25.

To find higher outlier value:

Q3+1.5(IQR) = 82.5+1.5(26.5) = 122.25

Here to there is no higher outlier present due to the maximum value 99 not higher than 122.25

For Night:

To find lesser outer value:

IQR = Q3-Q1 = IQR =89-78 = 11

In the dataset IQR value for night is 11.

To find outlier value:

Q1-1.5(IQR) = 78-1.5(11) = 16.5

In the night also there is no lesser outlier is present

To find higher outlier value:

Q3+1.5(IQR) = 89+1.5(11) = 105.5

There is no greater value is present in night . Therefore in the dataset no oulier present

INTERQUARTILE RANGE (IQR)