Interquartile Range(IQR)

a. The interquartile range. Compare the two interquartile ranges.

b. Any outliers in either set.

The five number summary for the day and night classes is

	Minimum	Q_1	Median	Q_3	Maximum
Day	32	56	74.5	82.5	99
Night	25.5	78	81	89	98

Day

2. Lesser outlier = $Q_1 - 1.5 * IQR$
   $= 56 - 1.5 * 26.5$
   $= 16.25$

IQR $= Q_3 - Q_1 = 82.5 - 56$
$= 26.5$ two

Day

Greatest Outlier $= Q_3 + 1.5 * IQR$
$= 82.5 + 1.5 \times 26.5$
$= 122.25$

Night

IQR $= Q_3 - Q_1 = 89 - 78$
$= 11$

Lesser Outlier $= 78 - 1.5 \times 11$
$= 78 - 16.5 = 61.5$

Greatest Outlier $= 89 + 1.5 \times 11$
$= 105.5$

Day:

The lesser outlier is 26.5 which is less than the given minimum value, so no lesser outlier is present in the given dataset.

The greatest outlier is 122.5 which is greater than the maximum value so there is no greatest outlier present in the given dataset.

Night:

The lesser outlier is 61.5 which is greater than the given minimum value, so lesser outlier is present in the given dataset.

The greatest outlier is 105.5 which is greater than the maximum value so there is no greatest outlier present in the given dataset.