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SUM:

Q: a. IQR. Compare the two IQR.

b. Any outliers in either set.

The five numbers summary for the Day & Night classes is

	MIN	Q1	MEDIAN	Q3	MAX
Day	32	56	74.5	82.5	99
Night	25.5	78	81	89	98

Solution:

Day:

$$\text{IQR} = Q3 - Q1$$

$$= 82.5 - 56$$

$$= 26.5$$

$$(1.5)(\text{IQR}) = 1.5 * 26.5 = 39.75$$

$$\text{Lesser Range} = Q1 - (1.5)(\text{IQR})$$

$$= 56 - 39.75$$

$$= 16.25$$

$$\text{Greater Range} = Q3 + (1.5)(\text{IQR})$$

$$= 82.5 + 39.75$$

$$= 122.25$$

Night:

$$\text{IQR} = Q3 - Q1$$

$$= 89 - 78$$

$$= 11$$

$$(1.5)(IQR)=1.5*11=16.5$$

$$\text{Lesser Range}=Q1-(1.5)(IQR)$$

$$= 78-16.5$$

$$= 61.5$$

$$\text{Greater Range}=Q3+(1.5)(IQR)$$

$$=89+16.5$$

$$= 105.5$$

Summary: There is no outlier present in both the Day & Night sets.

IQR of Day dataset is greater than IQR of Night dataset.