

Name: Key

Show work needed to justify your answer.

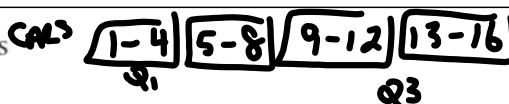
Date: _____

HW: # 26: Math IBSL - Standard 25 - Measures of Dispersion (day 1)

5 points

5 This table shows the number of passengers in each of 16 cars.

People	2	3	4	5	6
Cars	6	3	3	2	2



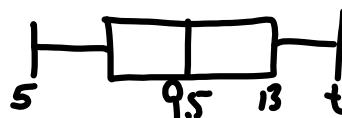
Find the interquartile range.

$$IQR = 4.5 - 2 = \boxed{2.5}$$

6 The data below is listed in ascending order:

$\boxed{5, 6, 7}$ $\boxed{7, 9, 9}$ $r, 10, s,$ $\boxed{13, 13, t}$

The median of the data is 9.5. The upper quartile Q_3 is 13.



a Write down the value of:

i $r = 10$

ii $s = 13$

b The mean of the data is 10. Find the value of $t = 18$

$$\frac{t + 102}{12} = 10$$

$$t + 102 = 120 \rightarrow t = 18$$

4 Test scores for an IB morning exam are:

~~99, 56, 78, 55.5, 52, 90, 80, 81, 56, 59, 45,~~ 20
~~77, 84.5, 84, 79, 72, 68, 52, 79, 90~~

Test scores for an IB afternoon exam are:

~~98, 78, 68, 85, 81, 89, 88, 76, 65, 45, 98,~~ 22
~~90, 80, 84.5, 85, 79, 78, 98, 90, 79, 81, 25.5~~

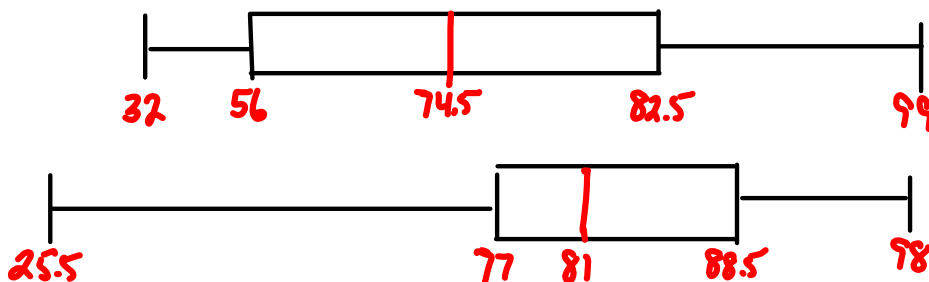
a Draw a box-and-whisker plot for each data set. Use one number line for both plots, and draw one above the other.

→ The morning class.

b State which examination has the greatest spread for the middle 50%.

a) $\boxed{32, 32, 45, 55.5, 56}$ $\boxed{56, 59, 68, 70, 72}$ $\boxed{77, 78, 79, 80, 81}$ $\boxed{84, 84.5, 90, 90, 99}$

Q_1 m Q_3



$25.5, 45, 65, 68, 76, 78, 78, 79, 79, 80, 81, 81, 83, 81.5, 85, 88, 89, 90, 90, 98, 98$

Q_1 m Q_3