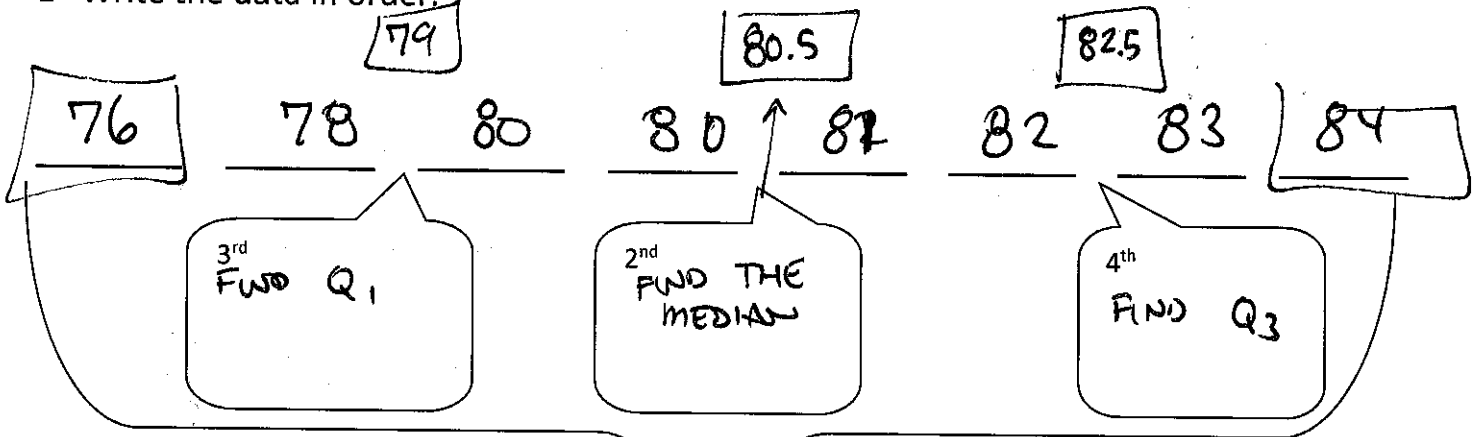


# Box and Whisker Plot: Use 84, 80, 78, 81, 83, 76, 82, 80

<p><b>Mean: THE AVERAGE</b></p> <p>- ADD ALL NUMBERS</p> <p>- DIVIDE BY TOTAL NUMBER</p>	<p><b>Median: THE MIDDLE NUMBER</b></p> <p>- WRITE THE NUMBERS IN ORDER, SMALLEST TO GREATEST</p> <p>- FIND THE MIDDLE</p> <p>- IF TWO IN THE MIDDLE, TAKE AVERAGE OF THEM</p>	<p><b>Mode: MOST FREQUENT NUMBER</b></p> <p>- THERE CAN BE NONE, ONE, OR MANY</p>	<p><b>Range:</b></p> <p>HIGHEST VALUE MINUS LOWEST VALUE</p>
<p><b>First Quartile: <math>Q_1</math></b></p> <p>- MEDIAN OF THE LOWER HALF OF DATA</p>	<p><b>Third Quartile: <math>Q_3</math></b></p> <p>- MEDIAN OF THE <del>LOWER</del> UPPER HALF OF DATA</p>	<p><b>Interquartile Range: IQR</b></p> <p><math>Q_3</math> MINUS <math>Q_1</math></p>	

To make a box and whisker plot:

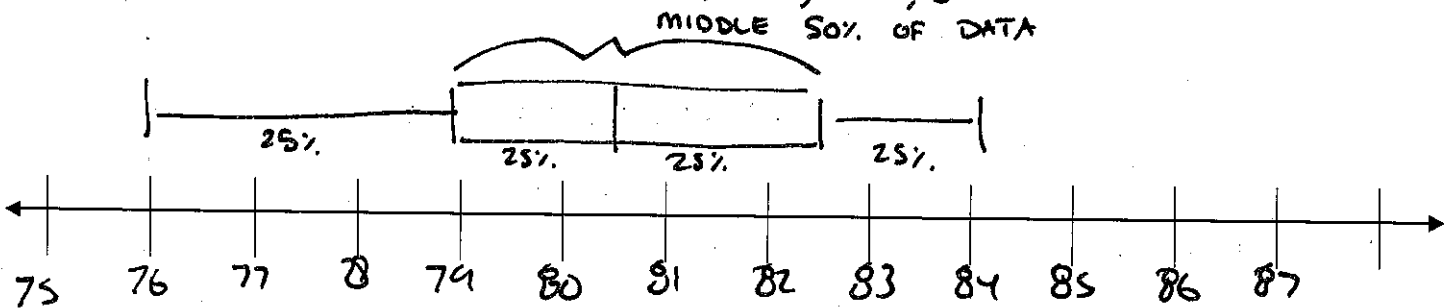
1<sup>st</sup> Write the data in order.



IQR:  $82.5 - 79 = 3.5$

Range:  $84 - 76 = 8$

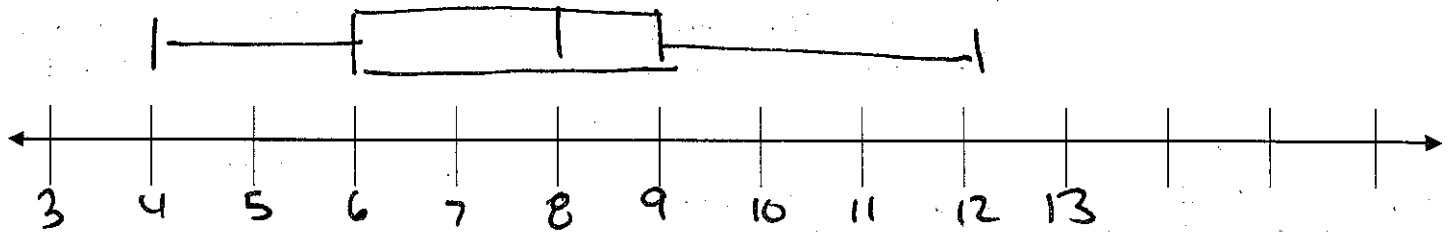
5 NUMBER SUMMARY: 76, 79, 80.5, 82.5, 84



Draw a Box plot for the data below and give the mode, range, IQR and mean

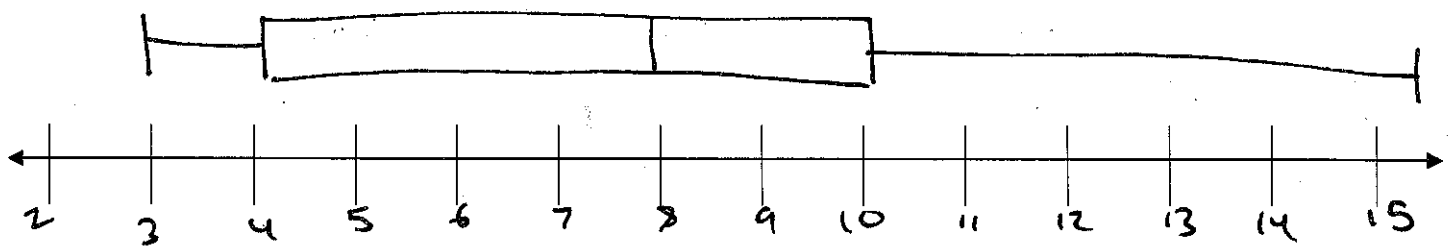
Mode: 8 and 9  
 Range: 8  
 IQR: 3  
 Mean: 8

Example 1: 4, 5, (6), 8, 8, (8), 9, 9, (9), 10, 12



Mode: 8  
 Range: 12  
 IQR: 6  
 Mean: 7.7

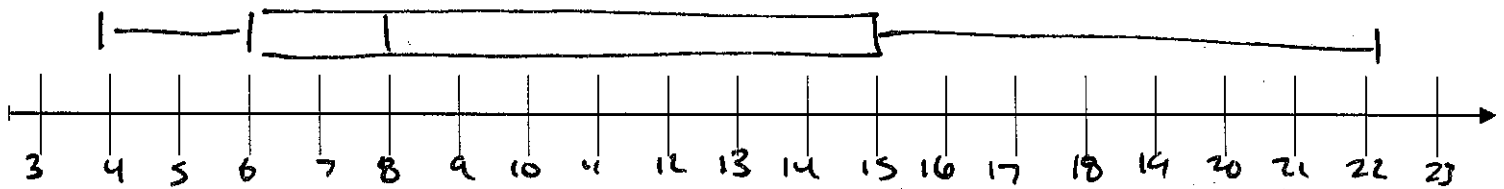
Example 2: 3, 4, (4), 6, 8, (8), 8, 9, (10), 10, 15



Mode: 8  
 Range: 18  
 IQR: 9  
 Mean: 11

Example 3: 6, 22, 4, 15, 14, 8, 8

4, (6), 8, (8), 4, (15), 22



Mode: NONE  
 Range: 19  
 IQR: 13  
 Mean: 19

Example 4: 10, 15, 12, 20, 25, 22, 29 (10), (12), (15), (20), (22), (25), (29)

