

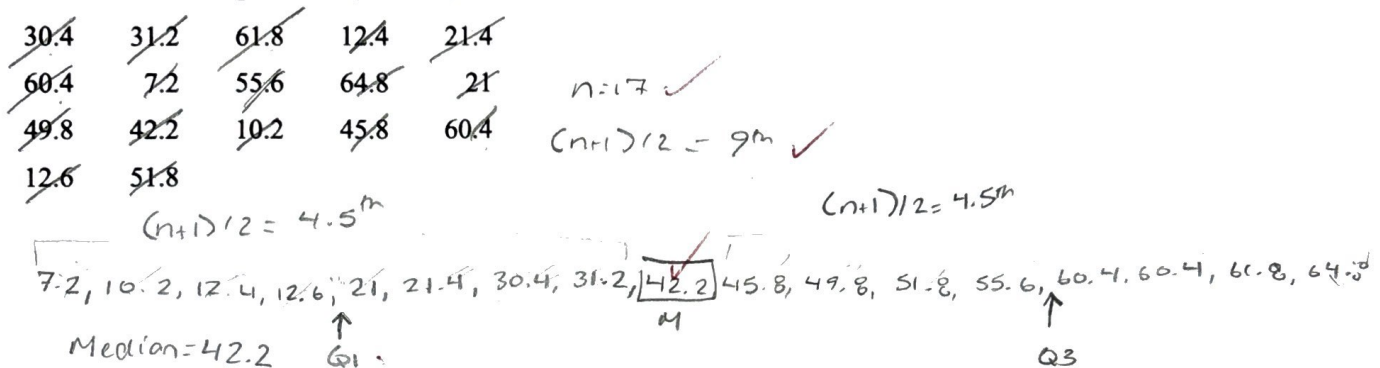
Homework #9.3: Measure of Spread: Box and Whisker Plot

For each question, calculate:

1. Median
2. First Quartile (or lower quartile)
3. Third Quartile (or upper quartile)
4. Interquartile Range (IQR)
5. Lower threshold for outliers
6. Upper threshold for outliers

Then draw the box and whisker plot. Be organized and neat in your work.

1. Annual Precipitation (Inches)



$$Q1 = 16.8$$

$$Q3 = 58$$

$$IQR = Q3 - Q1$$

$$= 58 - 16.8$$

$$= 41.2$$

$$LT = Q1 - (1.5 \times IQR)$$

$$= 16.8 - 61.8$$

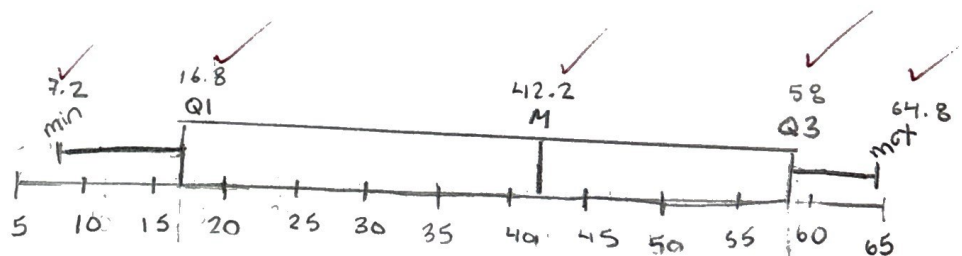
$$= -45$$

$$UT = Q3 + (1.5 \times IQR)$$

$$= 58 + 61.8$$

$$= 119.8$$

NO OUTLIERS



2.

Car Masses (kg)

1,870	1,590	1,090	1,550	1,380	$n = 16 \checkmark$ $(n+1)/2 = 8.5^{th}$
1,495	1,725	1,680	1,895	845	
1,540	1,435	1,785	1,780	1,275	
1,725					

$$(n+1)/2 = 4.5^{th}$$

$$(n+1)/2 = 4.5^{th}$$

845, 1090, 1275, 1380, 1435, 1495, 1540, 1550, 1570, 1680, 1725, 1725, 1780, 1785, 1870, 1895

Median: 1570 $\checkmark$

$Q1 = 1407.5 \checkmark$

$Q3 = 1752.5 \checkmark$

$IQR = Q3 - Q1 \checkmark$

$$= 1752.5 - 1407.5$$

$$= 345 \checkmark$$

$$LT = Q1 - (1.5 \times IQR)$$

$$= 1407.5 - 517.5$$

$$= 890 \checkmark$$

$$UT = Q3 + (1.5 \times IQR)$$

$$= 1752.5 + 517.5$$

$$= 2270 \checkmark$$

* LOWER OUTLIER FOUND *

$$845 < 890$$

