Activity-4

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1) $X = [1, 2, 3, 4, 5, 12, 13, 76]$

Sort

$X = [1, 2, 3, 4, 5, 12, 13, 76]$

$Q_2 = 4.5 \quad Q_3 = 13$

$Q_1 = 2$

$IQR = 11$

$w_1 = Q_1 - (IQR * 1.5)$

$= 2 - (11 * 1.5)$

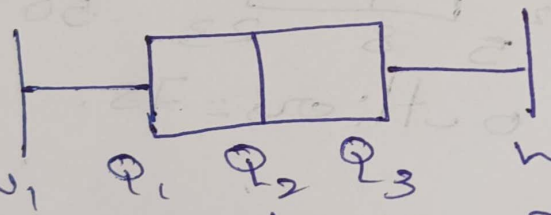
$= -14.5$

$w_2 = Q_3 + (IQR * 1.5)$

$= 13 + (11 * 1.5)$

$= 29.5$

outliers = 76



2) $Y = [2, 5, 56, 23, 12, 1, 9, 50]$

Sort

$Y = [1, 2, 5, 9, 12, 23, 50, 56]$

$Q_2 = 10.5 \quad Q_1 = 2$

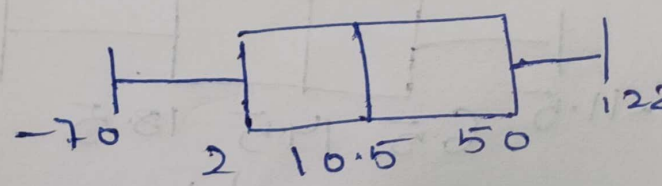
$Q_3 = 50 \quad IQR = 48$

$w_1 = 2 - (48 \times 1.5)$

$= -70$

$w_2 = 50 + (48 \times 1.5)$

$= 122$



no outliers

3) A = [9, 8, 6, 7, 34, 12, 12]

Sort

A = [6, 7, 8, 9, 12, 12, 34]

$Q_1 = 7$ $Q_2 = 9$, $Q_3 = 12$

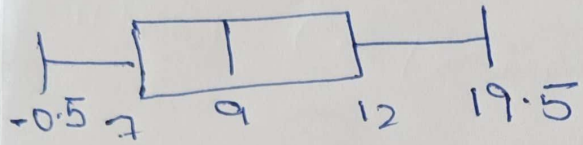
IQR = 5

$w_1 = 7 - (5 * 1.5)$

$= -0.5$

$w_2 = 12 + 7.5$

$= 19.5$



outliers = 34

4) B = [12, 13, 16, 1, 18, 19]

Sort

B = [1, 12, 13, 16, 18, 19]

$Q_1 = 6.5$ $Q_2 = 14.5$

$Q_3 = 18.5$

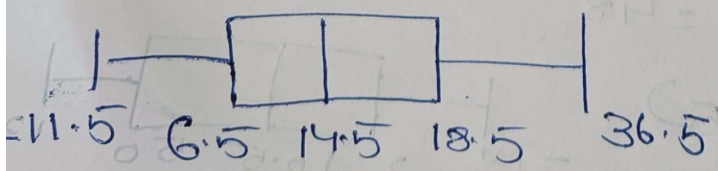
IQR = 12

$w_1 = 6.5 - (12 * 1.5)$

$= -11.5$

$w_2 = 18.5 + (12 * 1.5)$

$= 36.5$



No outliers

5) C = [12, 78, 3, 7, 8, 5, 23]

Sort

C = [3, 5, 7, 8, 12, 23, 78]

$Q_1 = 5$ $Q_2 = 8$

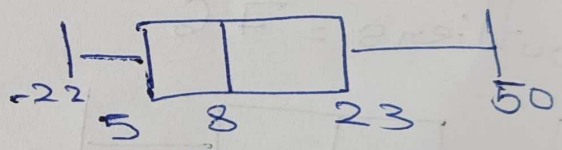
$Q_3 = 23$ IQR = 18

$w_1 = 5 - (18 * 1.5)$

$= -22$

$w_2 = 23 + (18 * 1.5)$

$= 50$



outliers = 78.

6) D = [34, 6, 7, 8, 9, 90, 23]

D = [6, 7, 8, 9, 23, 34, 90]

$Q_2 = 9$, $Q_1 = 7$ $Q_3 = 34$

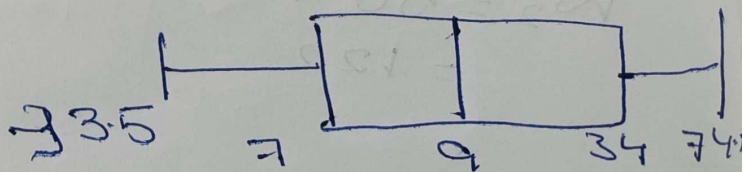
IQR = 27

$w_1 = 7 - [27 * 1.5)$

$= -33.5$

$w_2 = 34 + (27 * 1.5)$

$= 74.5$



outliers