

Activity-04

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

sort

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

$$Q_2 = 4.5 \quad Q_3 = 13$$

$$Q_1 = 2$$

$$IQR = 11$$

$$W_1 = Q_1 - (IQR * 1.5)$$

$$= 2 - (11 * 1.5)$$

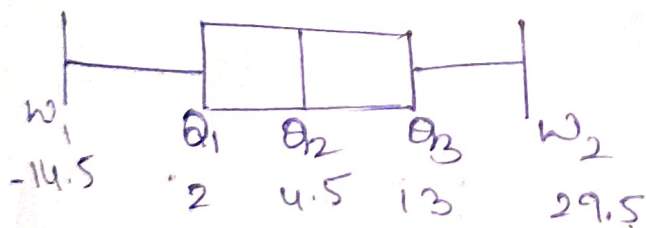
$$= -14.5$$

$$W_2 = Q_3 + (IQR * 1.5)$$

$$= 13 + (11 * 1.5)$$

$$= 29.5$$

outliers = 76



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

sort

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

$$Q_2 = 10.5 \quad Q_1 = 2$$

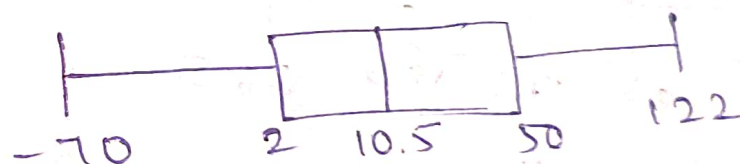
$$Q_3 = 50 \quad IQR = 48$$

$$W_1 = 2 - (48 * 1.5)$$

$$= -70$$

$$W_2 = 50 + (48 * 1.5)$$

$$= 122$$



no outliers

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

sort

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

$$Q_1 = 7 \quad Q_2 = 9 \quad Q_3 = 12$$

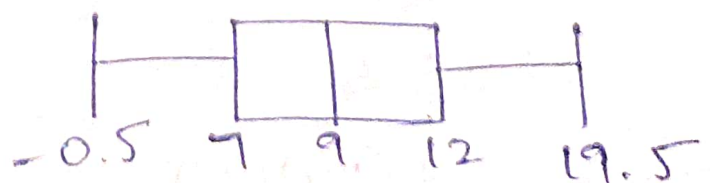
$$IQR = 5$$

$$W_1 = 7 - (5 * 1.5)$$

$$= -0.5$$

$$W_2 = 12 + 7.5$$

$$= 19.5$$



outliers = 34

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

sort

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

$$Q_1 = 6.5 \quad Q_2 = 14.5$$

$$Q_3 = 18.5$$

$$IQR = 12$$

$$W_1 = 6.5 - (12 * 1.5)$$

$$= -11.5$$

$$W_2 = 18.5 + (12 * 1.5)$$

$$= 36.5$$



no outliers

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

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

$$Q_2 = 9 \quad Q_1 = 7 \quad Q_3 = 34$$

$$IQR = 27$$

$$W_1 = 7 - (27 * 1.5)$$

$$= -33.5$$

$$W_2 = 34 + (27 * 1.5)$$

$$= 74.5$$

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

sort

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

$$Q_1 = 5 \quad Q_2 = 8$$

$$Q_3 = 23 \quad IQR = 18$$

$$W_1 = 5 - (18 * 1.5)$$

$$= -22$$

$$W_2 = 23 + (18 * 1.5)$$

$$= 50$$



outliers = 78



outliers = 90