Box plot

Q) $[34, 6, 7, 8, 9, 90, 23]$

Ans: step1:- Sort the given data in assending order.

$[6, 7, 8, 9, 23, 34, 90]$
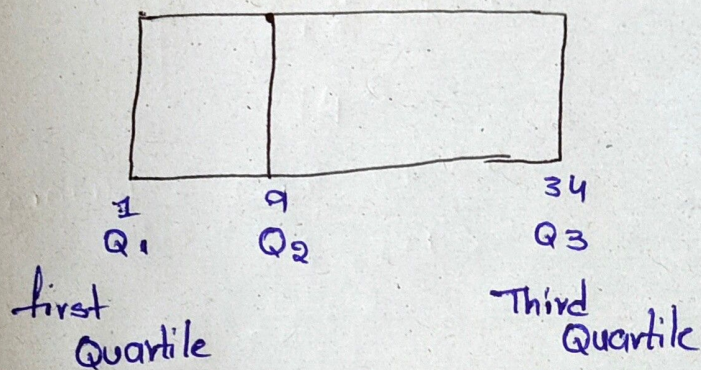
step2: Then find median Q_2

$Q_2 = 9$

step 3: Then find Q_1 and Q_3

$6, 7, 8, 9, 23, 34, 90.$

median of this data is Q

median of this data is Q_3

1	9	34
Q_1	Q_2	Q_3

first Quartile

Third Quartile

Then find IQR (Interquartile Range)

$IQR = Q_3 - Q_1$

$IQR = 27$

Then we have to find minimum and maximum to known Outlayers

for min $= Q_1 - (IQR \times 1.5)$

$\Rightarrow 7 - (27 \times 1.5)$
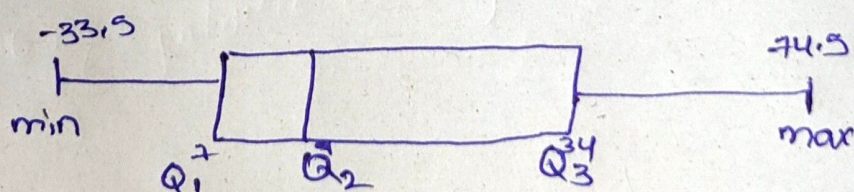
$\Rightarrow 7 - 40.5$

$\Rightarrow -33.5$

for max:- $Q_3 + (IQR \times 1.5)$

$\Rightarrow 34 + (27 \times 1.5)$

$\Rightarrow 34 + 40.5$

$\Rightarrow 74.5$

-33.5
min

74.5
max

Q_1^7 Q_2 Q_3^{34}

∴ In this given data 90 is the Qrtt outlayer