MID-TERM EXAMINATION (UTS)

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Class : **2I INFORMATICS ENGGINERING**
Subject : **Computational statistics**

You will use Pokemon data which can be accessed by this link. Your uploaded work must provide the justification of the calculation!

1. Complete your Pokemon data! Non-complete data of your Pokemon may affect to your score (50% point discount).
2. Calculate on "HP",
   a. Determine the mean, variance, and its standard deviation. **(5 pts)**

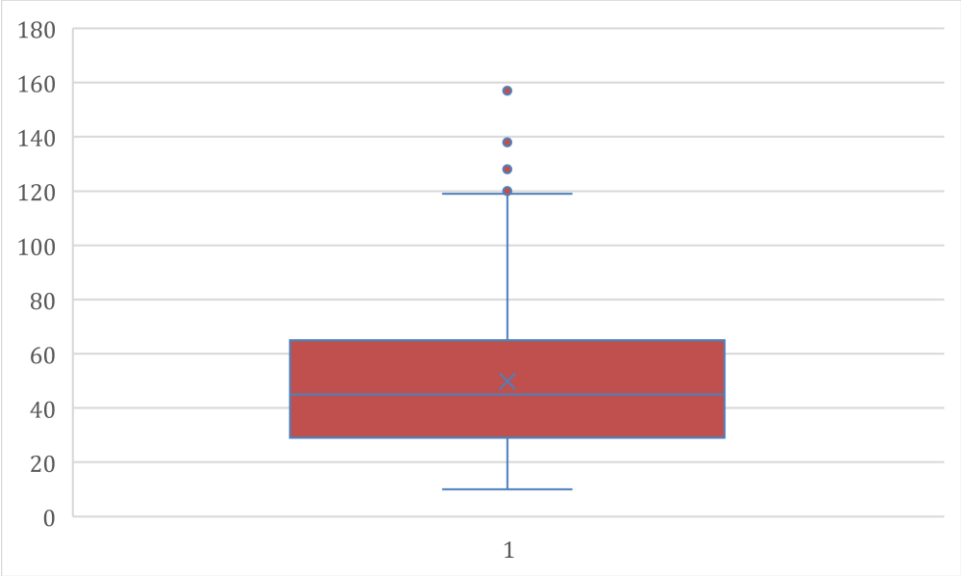
MEAN	Variance S	Standard D
49.81404	739.2223	27.18864

   b. Determine the Q1, Q2, and Q3. **(5 pts)**

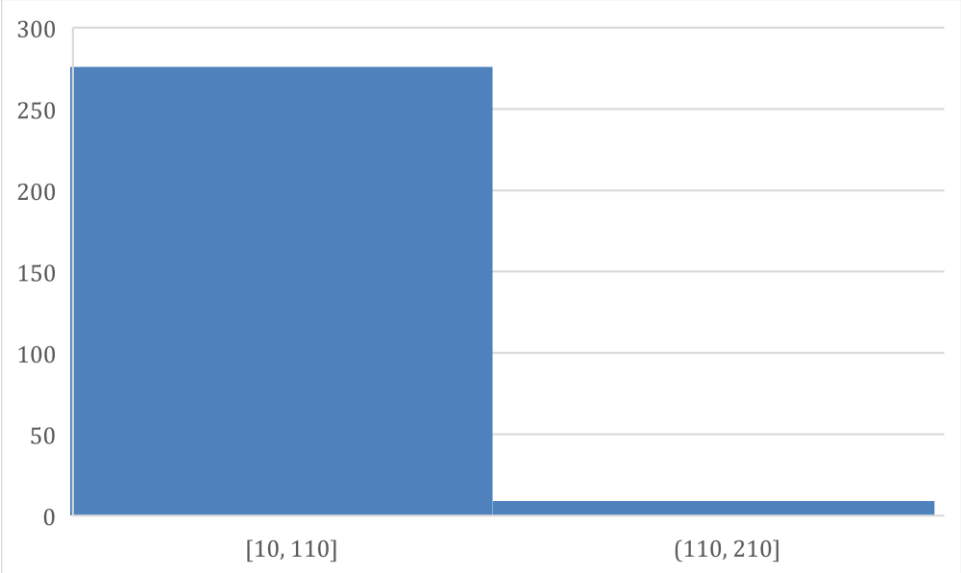
Q1	Q2	Q3	IQR
29	45	65	36

-25 119

   c. Is there any *outliers*? Mention if any! **(5 pts)**
      - 7
      - 157
      - 120
3. Based on your calculation at No. 2, make these several things:
   a. Boxplot of "HP" **(10 pts)**



b. Histogram of "HP" with the *bins* is 100. **(10 pts)**



4. Based on mean and standard deviation from No. 2, determine

   a. The *z-score* to Pokemon which has CP value up to 400 **(10 pts)**

   Probability: 228.4421
   Standard deviesion CP : 274.9121

   b. Probability of Pokemon which has DEF more than 60 **(10 pts)**

   probability pokemon deff 60+

   total pokemon cp +60 200

   total pokemon 285

   probability 0,701754386

5. Determine,

   a. Probability of "CAUGHT" and "FLEE". **(5 pts)**

   probability caugh / flee probability

   total caught 274 : 0,9614035088

   total flee 11: 0,03859649123

total pokemon 285

b. By choosing caught Pokemon 10 times randomly, what is the probability of 3 electric Pokemons? **(20 pts)**

Total Eletctric Caught: 33

Total electric pokemon: 274

Probability caught electric: 0,115789474

3 electric from 10 trial: 0,078718761

c. Use bar chart to represent the distribution of any Pokemons which are caught at Polinema using 10 point as interval. **(20 poin)**