



Questions

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)
 - b. Determine the Q1, Q2, and Q3. (5 pts)
 - c. Is there any outliers? Mention if any! (5 pts)
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)
 - b. Probability of Pokemon which has DEF more than 60 (10 pts)

Note:

- Use 3 decimal rounded for mean and standard deviation
- Use 2 decimal no-rounded for z-score.
- Use all decimal no-rounded for probability score

5. Determine,
 - a. Probability of "CAUGHT" and "FLEE". (5 pts)
 - b. By choosing caught Pokemon 10 times randomly, what is the probability of 3 electric Pokemons? (20 pts)
 - c. Use bar chart to represent the distribution of any Pokemons which are caught at Polinema using 10 point as interval. (20 poin)

Catatan: Gunakan seluruh nilai desimal yang ada

Answer

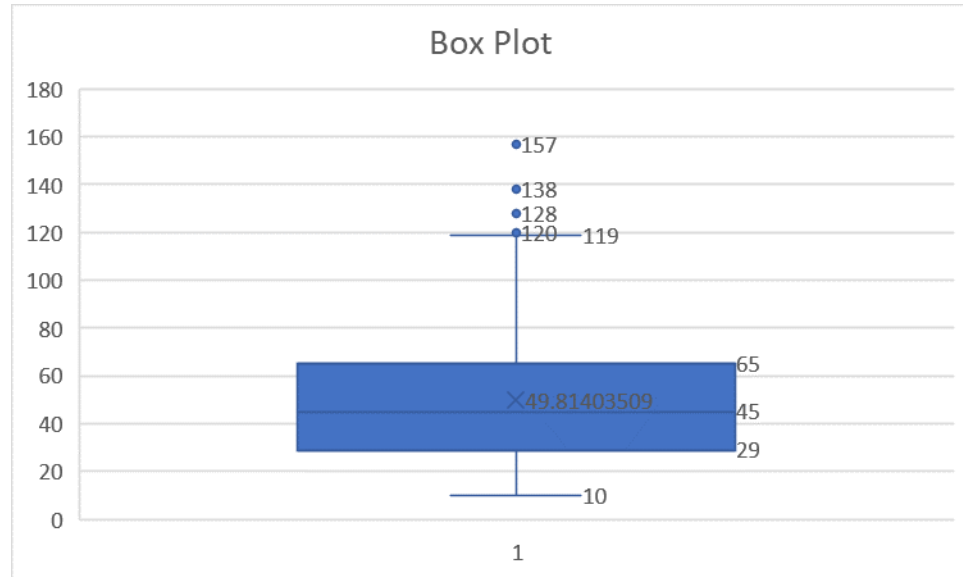
1. Completed
2.
 - a. Mean = 49.814
 - Variance = 739.222
 - Standard Deviation = 27.189
 - b. Q1 = 29.00
 - Q2 = 45.00
 - Q3 = 65.00

c. Yes, there are Outliers. With lower = 25.00 and Higher = 119.00, the Outliers includes pokemons such as:

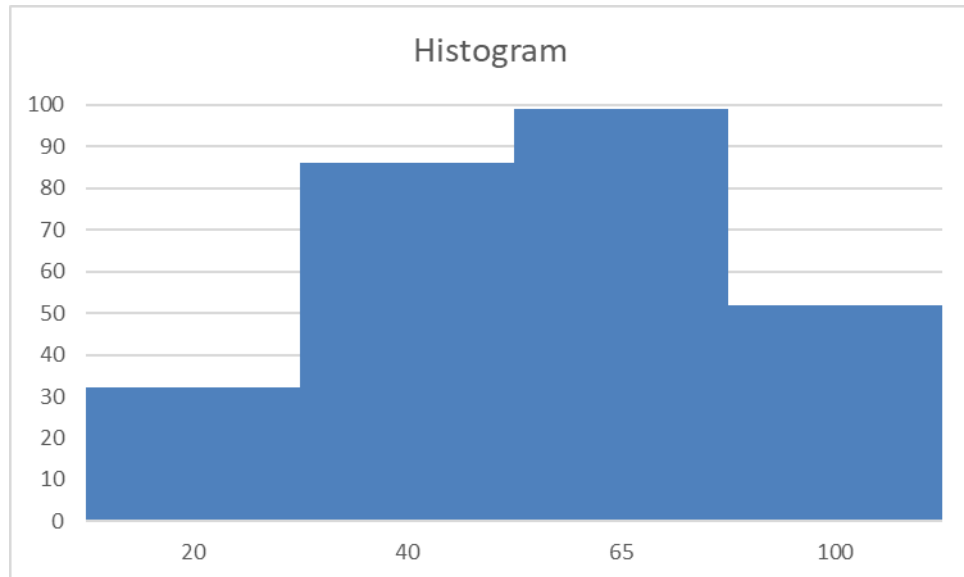
- Togedemaru (120 HP / Higher)
- Weedle (120 HP / Higher)
- Ninetales (121 HP / Higher)
- Masquerain (121 HP / Higher)
- Furfrou (128 HP / Higher)
- Tranquill (138 HP / Higher)
- Throh (157 HP / Higher)

3.

a. .



b. .



4. a.

Pokemon	cp	Z- Score
Flaeron	1648	FALSE
Ninetales	1461	FALSE
Furfrou	1403	FALSE
Throh	1288	FALSE
Heracross	1243	FALSE
Oddish	14	13.17

Arbok	1204	FALSE
Feraligatr	287	286.17
Lairon	80	79.17
Chinchou	485	FALSE
Tranquill	173	172.17
Ledyba	251	250.17
Masquerain	1533	FALSE
Togedemaru	1595	FALSE
Pidove	268	267.17
Surskit	382	381.17
Surskit	519	FALSE
Pidove	104	103.17
Tranquill	173	172.17
Pikachu	111	110.17
Grubbin	769	FALSE
Tynamo	423	FALSE
Pidove	586	FALSE
Stufful	378	377.17
Magikarp	92	91.17
Masquearin	881	FALSE
Karrablast	376	375.17
Surskit	186	185.17
Yanma	576	FALSE
Surskit	405	FALSE
Cyndaquil	59	58.17
Typhlosion	775	FALSE
Grubbin	578	FALSE
Vulpix	309	308.17
Lillipup	574	FALSE
Surskit	468	FALSE
Doduo	871	FALSE
Aron	879	FALSE
Tynamo	423	FALSE
Grubbin	769	FALSE
Ledyba	544	FALSE
Surskit	199	198.17
Caterpie	102	101.17
Sandshrew	773	FALSE
Lillipup	57	56.17
Doduo	874	FALSE
Slugma	445	FALSE
Surskit	170	169.17
Aron	81	80.17
Caterpie	43	42.17
Shelmet	76	75.17
Clauncher	131	130.17
Starly	10	9.17
Ledyba	10	9.17
Patrat	189	188.17

Caterpie	68	67.17
Starly	124	123.17
Zubat	85	84.17
Magikarp	108	107.17
Shroomish	54	53.17
Ledyba	193	192.17
Pidove	10	9.17
Tynamo	268	267.17
Lillipup	12	11.17
Hoppip	98	97.17
Caterpie	25	24.17
Cyndaquil	166	165.17
Starly	113	112.17
Tranquill	243	242.17
Charmander	12	11.17
Burmy	71	70.17
Lillipup	34	33.17
Hoppip	35	34.17
Hoppip	70	69.17
Tynamo	137	136.17
Cyndaquil	116	115.17
Starly	65	64.17
Shroomish	10	9.17
Castform	393	392.17
Weedle	87	86.17
Solrock	543	FALSE
Starly	268	267.17
Purrloin	28	27.17
Tynamo	147	146.17
Lillipup	12	11.17
Bunnelby	33	32.17
Froakie	37	36.17
Weedle	108	107.17
Pidove	170	169.17
Pidove	205	204.17
Ledyba	152	151.17
Stufful	367	366.17
Pidove	155	154.17
Weedle	105	104.17
Chinchou	163	162.17
Tranquill	96	95.17
Patrat	167	166.17
Ledyba	66	65.17
Togedemaru	90	89.17
Sentret	39	38.17
Sunkern	21	20.17
Grubbin	160	159.17
Sandslash	541	FALSE
Tynamo	251	250.17

Ekans	230	229.17
Weedle	243	242.17
Bulbasaur	14	13.17
Caterpie	60	59.17
pikachu	189	188.17
diglett	101	100.17
drownzee	279	278.17
Voltrob	414	FALSE
Hitmonlee	390	389.17
Magikarp	10	9.17
Eevee	288	287.17
Hoothoot	187	186.17
Starly	36	35.17
Nosepass	21	20.17
Hoppip	82	81.17
Teddiursa	204	203.17
Slugma	153	152.17
Houndour	487	FALSE
Himontop	394	393.17
Nosepass	325	324.17
Volbeat	268	267.17
Castform	221	220.17
Starly	444	FALSE
Glameow	242	241.17
Bidoof	520	FALSE
Buneary	323	322.17
Snower	749	FALSE
Oshawott	77	76.17
Patrat	185	184.17
Lillipup	57	56.17
Purrloin	420	FALSE
Pansear	365	364.17
Pidove	371	370.17
Tranquill	1030	FALSE
Roggenrola	38	37.17
Drilbur	425	FALSE
Purrloin	314	313.17
Vanipeda	98	97.17
pikachu	425	FALSE
diglett	314	313.17
Drowzee	98	97.17
Voltrob	236	235.17
Hitmonlee	198	197.17
Teddiursa	251	250.17
Chinchou	333	332.17
Yungoos	157	156.17
Weedle	72	71.17
Froakie	340	339.17
Ekans	11	10.17

Oddish	190	189.17
Stunky	45	44.17
Gastly	289	288.17
Stufful	17	16.17
Duoduo	217	216.17
Pidove	217	216.17
Voltrob	326	325.17
Oddish	153	152.17
Purrloin	124	123.17
Zubat	228	227.17
Tympole	92	91.17
Chinchou	104	103.17
Froakie	173	172.17
Glameow	125	124.17
Pansage	95	94.17
Glameow	11	10.17
Magikarp	40	39.17
Karrablast	108	107.17
Aron	251	250.17
Starly	141	140.17
Caterpie	75	74.17
Surskit	142	141.17
Primeape	280	279.17
Ledyba	73	72.17
Solrock	350	349.17
Ekans	164	163.17
Patrat	231	230.17
Hoppip	29	28.17
Teddiursa	203	202.17
Bunnelby	62	61.17
Vulpix	102	101.17
Foongus	166	165.17
Zubat	126	125.17
Drifblim	31	30.17
Voltrob	37	36.17
Surskit	32	31.17
Staravia	17	16.17
Houndour	15	14.17
Mareanie	141	140.17
Houndour	115	114.17
Sentret	39	38.17
Caterpie	30	29.17
Eevee	14	13.17
Surskit	122	121.17
Bulbasaur	14	13.17
Charmander	12	11.17
Tranquil	18	17.17
Hitmontop	28	27.17
Starly	29	28.17

Sewaddle	34	33.17
Flareon	39	38.17
Voltrob	40	39.17
Popplio	48	47.17
Vulpix	51	50.17
Aaron	52	51.17
Tranquill	54	53.17
Bidoof	66	65.17
Pidove	71	70.17
Kricketot	75	74.17
Lillipup	77	76.17
Kricketot	78	77.17
Ekans	81	80.17
Grubbin	95	94.17
Deerling	111	110.17
Cuterie	115	114.17
Cyndaquil	120	119.17
Chinchou	135	134.17
Froakie	140	139.17
Deerling	144	143.17
Lillipup	154	153.17
Lillipup	163	162.17
Patrat	177	176.17
Oddish	213	212.17
Chikorita	189	188.17
Mareanie	195	194.17
Chinchou	225	224.17
Pidove	228	227.17
Fletchling	231	230.17
Oddish	234	233.17
Exeggcute	254	253.17
Corsola	255	254.17
Sawk	270	269.17
Doduo	274	273.17
Popplio	278	277.17
Ekans	303	302.17
Ekans	255	254.17
Ekans	275	274.17
Oddish	156	155.17
Mareanie	195	194.17
Tentacool	342	341.17
Lairon	428	FALSE
Hitmontop	512	FALSE
Lairon	193	192.17
Pikachu	64	63.17
Panpour	38	37.17
Aron	117	116.17
Zubat	160	159.17
Froakie	101	100.17

Tepig	71	70.17
Eevee	129	128.17
Elgyem	334	333.17
Snivy	10	9.17
Wooper	10	9.17
Bergmite	80	79.17
Voltorb	110	109.17
Karrablast	48	47.17
Ekans	109	108.17
Drifblim	508	FALSE
Meowth	118	117.17
Venonat	108	107.17
Venipede	84	83.17
Clauncher	66	65.17
Tympole	50	49.17
Dunsparce	172	171.17
Oshawott	70	69.17
Ferroseed	62	61.17
Blitzle	89	88.17
Ralts	177	176.17
Togedemaru	370	369.17
Lunatone	30	29.17
Foongus	289	288.17
Wimpod	114	113.17
Poliwag	98	97.17
Pikachu	211	210.17
Vulpix	10	9.17
Seel	136	135.17
Yungoos	37	36.17
Ekans	11	10.17
Squirtle	12	11.17
Arbok	43	42.17
Ekans	56	55.17
Arbok	23	22.17

b. Total Pokemon Who have DEF > 60 = 200
 Total Overall Pokemon = 285
 Probability of Pokemon which has DEF more than 60 = 0.701754386

5. a. Total Pokemon Who have Caught = 274
 Total Overall Pokemon = 285
 Probability of Pokemon which has been caught = 0.961403509

Total Pokemon Who have Fled = 11
 Total Overall Pokemon = 285
 Probability of Pokemon which fled = 0.038596491

b. Total Electric Type Pokemon = 31
 Total Overall Pokemon = 285
 Probability of Catching Electric Type Pokemon = 0.10877193
 Probability of Catching 3 Electric Type Pokemon 10 Times Randomly = 0.068968971

c.

