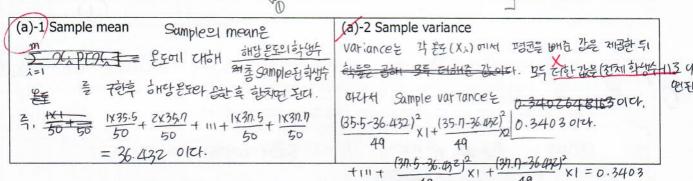
- [10] Today, 1,000 students came to the campus and only 50 students are sampled to check the body temperature. The following table shows the number of students with temperatures in 0.2° interval.
 - (a) Find the sample mean and the sample variance of body temperature (Note: calculate the sample mean with one digit below the decimal point and the sample variance with two digits below the decimal point). [6 pts]

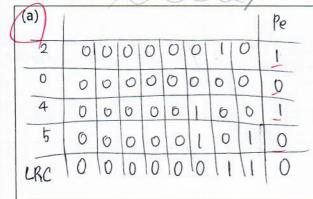
Temp(°C)	35.5	35.7	35.9	36.1	36.3	36.5	36.7	36.9	37.1	37.3	37.5	37.7
# of Students	1	2	7	5	7	11	9	4	2	0	1	1
Calculation space	1/50	2 50	750	5/50	7 50	11 50	9 50	4	2 50	0 50	50	50



+111+ (31.5-36.432)2 ×1 + (31.7-36.432)2 ×1 = 0.3403

(b) Estimate the total number of students among 1,000 students whose temperature can be above 37°C. (Note: You MUST use the z-Table) [3 pts]

- [11] A data packet contains a 4-digit password 2045. Each code word contains a single character encoded using ASCII codes that form octabit (8-bit) data plus an even-parity bit.
 - (a) Generate a data packet that includes a LRC code word. [3 pts]
 - (b) Find the data increase factor for your data packet. [2 pts]



(b)) 2 ^{DIF=-}	9 X 5	$=\frac{45}{32}$	