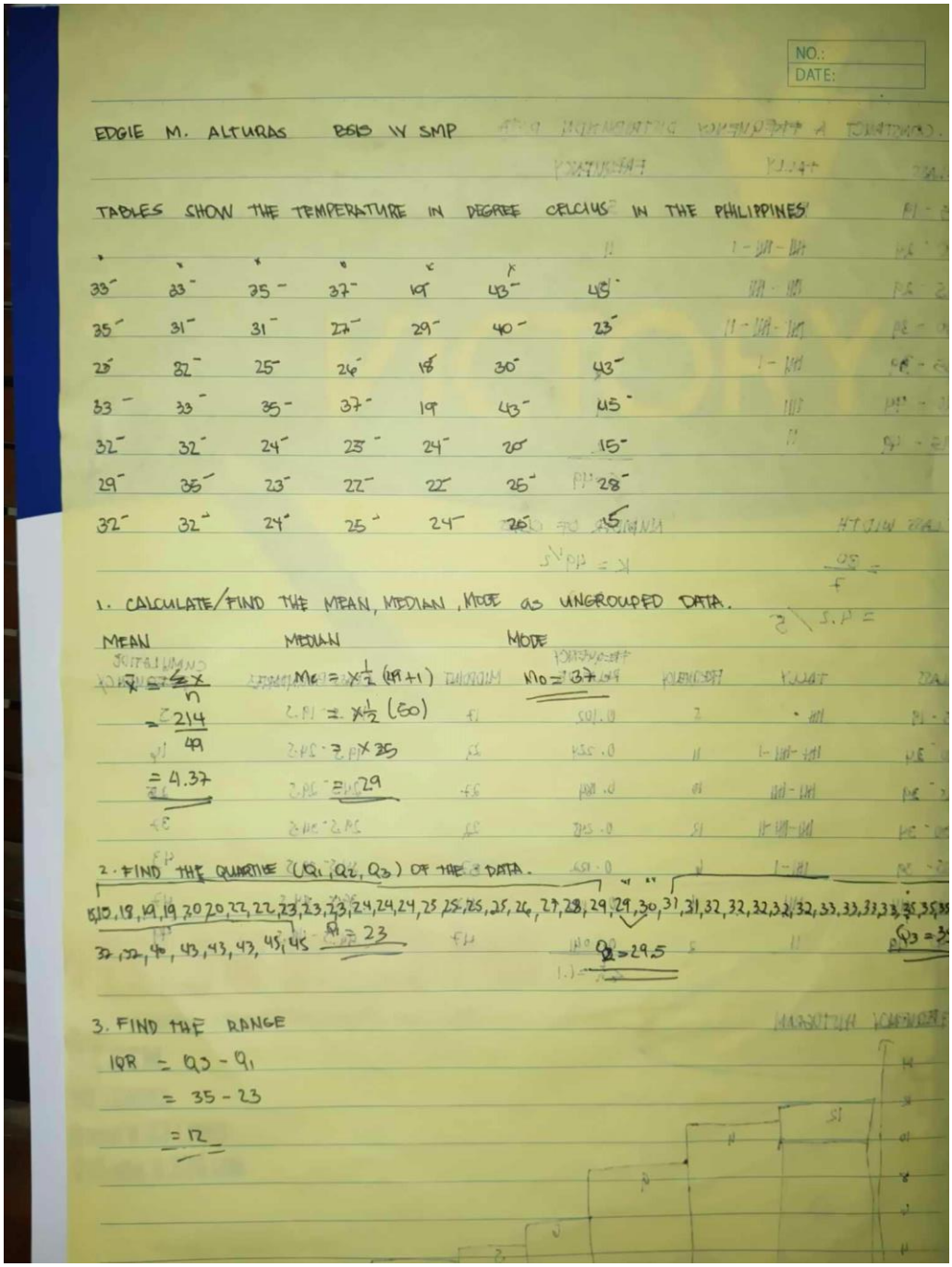
Alturas, Edgie

1. **Calculate/ find the Mean, Median, Mode as Ungrouped Data**
2. **Find the Quartile (Q_1, Q_2, Q_3) of the data.**
3. **Find the Range.**



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EDGIE M. ALTURAS BSED V SMP

TABLES SHOW THE TEMPERATURE IN DEGREE CELCIUS IN THE PHILIPPINES

33	33	35	37	19	43	45
35	31	31	27	29	40	23
25	32	25	26	18	30	43
33	33	35	37	19	43	45
32	32	24	25	24	20	15
29	35	23	22	22	25	28
32	32	24	25	24	25	25

1. CALCULATE/FIND THE MEAN, MEDIAN, MODE as UNGROUPED DATA.

MEAN

$\bar{x} = \frac{\sum x}{n}$

$= \frac{214}{49}$

$= 4.37$

MEDIAN

$M_6 = x\frac{1}{2}(49+1)$

$= x\frac{1}{2}(50)$

$= 25$

$= 29$

MODE

$M_0 = 37$

2. FIND THE QUARTILE (Q_1, Q_2, Q_3) OF THE DATA.

15, 18, 19, 19, 20, 20, 22, 22, 23, 23, 23, 24, 24, 24, 25, 25, 25, 25, 26, 27, 28, 29, 29, 30, 31, 31, 32, 32, 32, 32, 32, 33, 33, 33, 33, 35, 35, 35, 35, 40, 43, 43, 43, 45, 45

$Q_1 = 23$

$Q_2 = 29.5$

$Q_3 = 35$

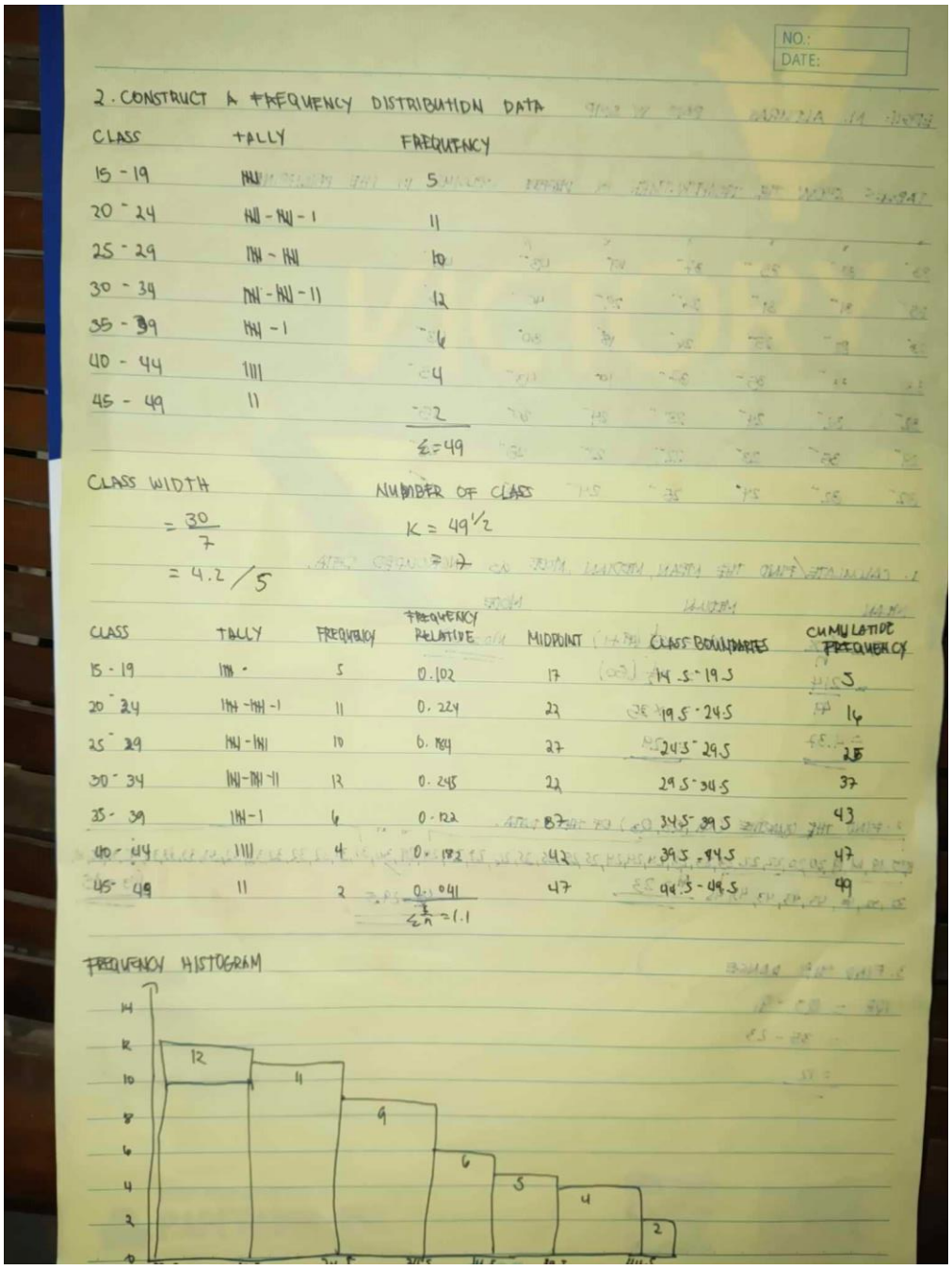
3. FIND THE RANGE

$IQR = Q_3 - Q_1$

$= 35 - 23$

$= 12$

2. Construct a Frequency Distribution Data



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2. CONSTRUCT A FREQUENCY DISTRIBUTION DATA

CLASS	TALLY	FREQUENCY
15 - 19	𝍸	5
20 - 24	𝍸 - 𝍸 - I	11
25 - 29	𝍸 - 𝍸	10
30 - 34	𝍸 - 𝍸 - II	12
35 - 39	𝍸 - I	6
40 - 44	IIII	4
45 - 49	II	2
		$\Sigma = 49$

CLASS WIDTH

$= \frac{30}{7}$

$= 4.2 / 5$

NUMBER OF CLASS

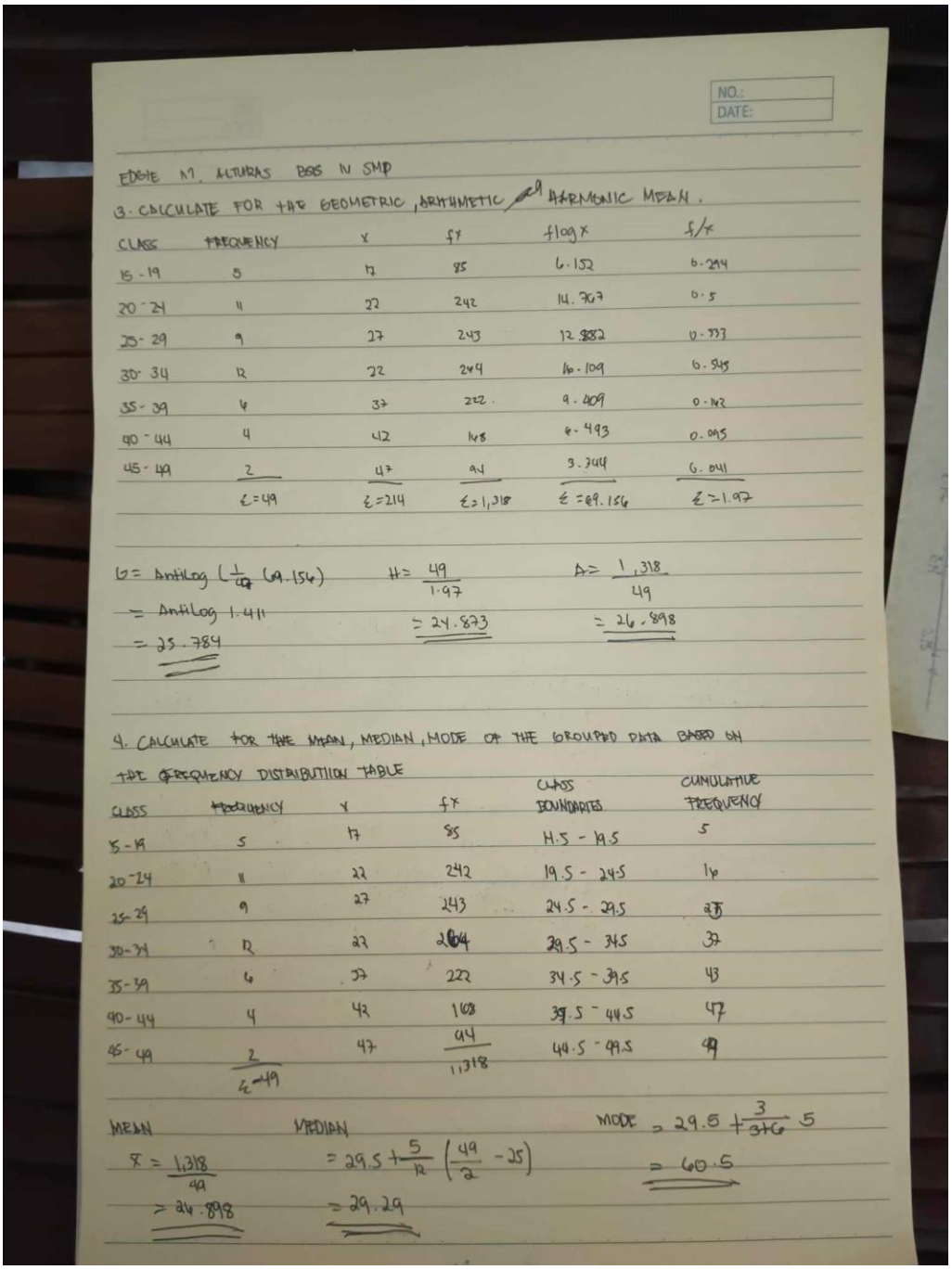
$K = 49^{1/2}$

$= 7$

CLASS	TALLY	FREQUENCY	FREQUENCY RELATIVE	MIDPOINT	CLASS BOUNDARIES	CUMULATIVE FREQUENCY
15 - 19	𝍸	5	0.102	17	14.5 - 19.5	5
20 - 24	𝍸 - 𝍸 - I	11	0.224	22	19.5 - 24.5	16
25 - 29	𝍸 - 𝍸	10	0.204	27	24.5 - 29.5	26
30 - 34	𝍸 - 𝍸 - II	12	0.245	22	29.5 - 34.5	37
35 - 39	𝍸 - I	6	0.122	37	34.5 - 39.5	43
40 - 44	IIII	4	0.082	42	39.5 - 44.5	47
45 - 49	II	2	0.041	47	44.5 - 49.5	49
			$\frac{\Sigma}{n} = 1.1$			

FREQUENCY HISTOGRAM

3. **Calculate for the Arithmetic, Geometric, and Harmonic Mean.**
4. **Calculate for the Mean, Median, Mode of the Grouped Data based on the Frequency Distribution Table.**



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EDDIE M. ALTURAS BSIS IV SMP

3. CALCULATE FOR THE GEOMETRIC, ARITHMETIC & HARMONIC MEAN.

CLASS	FREQUENCY	x	fx	flog x	f/x
15 - 19	5	17	85	6.152	0.294
20 - 24	11	22	242	14.767	0.5
25 - 29	9	27	243	12.882	0.333
30 - 34	12	32	244	16.109	0.375
35 - 39	6	37	222	9.409	0.162
40 - 44	4	42	168	6.493	0.095
45 - 49	2	47	94	3.344	0.041
	Σ=49	Σ=214	Σ=1,318	Σ=69.156	Σ=1.97

G = AntiLog $(\frac{1}{49}(69.156))$
= AntiLog 1.411
= 25.784

H = $\frac{49}{1.97}$
= 24.873

A = $\frac{1,318}{49}$
= 26.898

4. CALCULATE FOR THE MEAN, MEDIAN, MODE OF THE GROUPED DATA BASED ON THE FREQUENCY DISTRIBUTION TABLE

CLASS	FREQUENCY	x	fx	CLASS BOUNDARIES	CUMULATIVE FREQUENCY
15 - 19	5	17	85	14.5 - 19.5	5
20 - 24	11	22	242	19.5 - 24.5	16
25 - 29	9	27	243	24.5 - 29.5	25
30 - 34	12	32	264	29.5 - 34.5	37
35 - 39	6	37	222	34.5 - 39.5	43
40 - 44	4	42	168	39.5 - 44.5	47
45 - 49	2	47	94	44.5 - 49.5	49
	Σ=49		1,318		

MEAN
$\bar{x} = \frac{1,318}{49}$
= 26.898

MEDIAN
= $29.5 + \frac{5}{12}\left(\frac{49}{2} - 25\right)$
= 29.29

MODE = $29.5 + \frac{3}{3+6}5$
= 60.5