

15

Key

Math 20-2

Name: _____

Weekly Quiz: Central Tendency, Dispersion and Histograms.

1. ¹² Ten students wrote a quiz. Their marks are:

36	65	87	70	63	93
50	58	55	88	60	95

a) Determine the following (to one decimal place if necessary)

i. Mean: $68.333 = 68.3$

ii. Median: 64

iii. Range: $95 - 36 = 59$

iv. Standard Deviation: $17.8714 = 17.9$

[4]

b) Explain why the standard deviation gets smaller if you drop the lowest and the highest quiz scores from the calculation.

By removing smallest and largest marks, the remaining marks are closer to the mean.

[2]

2. Thirty students wrote a quiz. Their marks are:

Mark	Frequency
3	1
4	5
5	6
6	9
7	4
8	5

"n = 30"

a) What was the mode score? $most = 6$

[3]

b) Find the mean and standard deviation for these 30 quiz scores, rounded to one decimal place.

$\bar{x} = 5.8333$

$\sigma = 1.3924...$

$\bar{x} = 5.8$

$\sigma = 1.4$

3. Use the following exam scores to answer the next question:

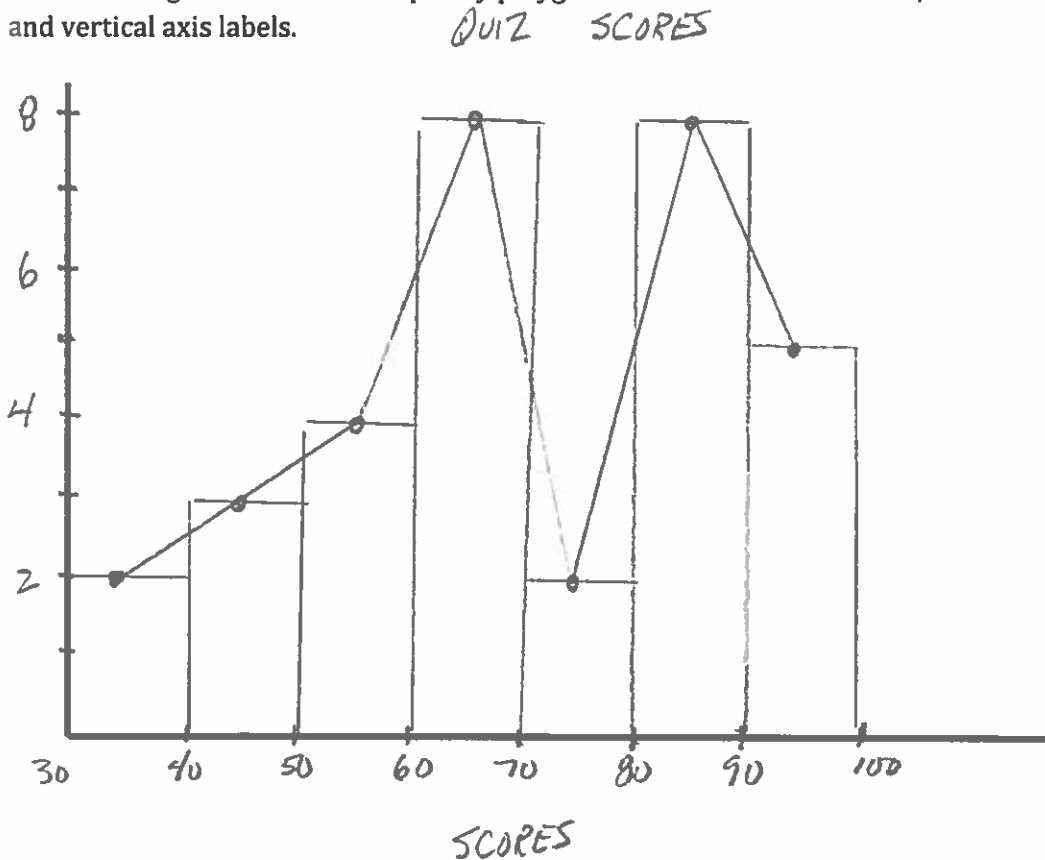
68	60	85	70	70	90	83	48
60	58	63	90	32	85	63	68
50	95	90	45	75	98	70	93
70	98	40	93	80	55	90	88

a) Create a tally chart with an interval size of 10, beginning with a quiz score of 31. Use only the rows you require.

Quiz Scores	Tally	Frequency
31-40		2
41-50		3
51-60		4
61-70		5
71-80		2
81-90		5
91-100		4

IF	THEN
30-39	1
40-49	3
50-59	3
60-69	6
70-79	5
80-89	5
90-99	9
100-109	0

b) Draw a histogram and add a frequency polygon. Be sure to include a title, both horizontal and vertical axis labels.



start 31
interval 10
tally
freq

3

32 - Axes/Title
32 - histogram
32 - freq poly

FREQUENCY