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Assignment 4 - Pay Raise Negotiation

Instructions

1. Answer the below question in the boxes provided.
2. Please submit the assignment through TalentLabs Learning System.

Scenario

Within a company, the employees are fighting for a raise in salary with their boss Mr. Cook. The employees' main argument is this:

"Our workers need more money to cope with the rising cost of living. No one in our Union earns more than $17,500 a month."

While Mr. Cook's main argument is this:

"The average salary in our company is $19 000. It is already higher than what you are asking for. I don't see why we need to increase the salary now."

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To resolve this argument, they sit down and look at the data together:

Position	Number of Employees	Monthly Salary	Part of the Employees Fighting for Pay Raise
President	1	150,000	N
Vice-president	2	90,000	N
Director	3	60,000	N
Branch Manager	3	45,000	N
Supervisor	3	30,000	N
Foreman	6	17,500	Y
Payroll Clerk	3	14,000	Y
Secretary	6	12,500	Y
Workman	30	12,000	Y
Sales Clerk	15	8,000	Y
General Clerk	6	7,500	Y

They found that the main issue is that the average salary is not really a good measure of how most of the employees are getting paid. The average salary is affected by the high salary of the executives and senior management. So they calculated the below:

Measurement of Central Tendency	**Value**
Mean/Average	$19,000
Mode	$12,000
Median	$12,000

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Question 1 (3 points)
Who would favor the use of mean, mode and media in the discussion of pay raise?

Measurement	**Who would favor the use of the measurement?**
Mean	Mr Cook
Mode	Employees fighting for pay raise
Median	Employees fighting for pay raise

Question 2 (6 points)
If the salaries of the 21 clerks with the lowest salaries are raised to $12,000, what is the new mean, mode and median?

Measurement	Calculation
The new mean	$\text{Mean} = \frac{(1 \times 150{,}000) + (2 \times 90{,}000) + (3 \times 60{,}000) + (3 \times 45{,}000) + (3 \times 30{,}000) + (6 \times 17{,}500) + (3 \times 14{,}000) + (6 \times 12{,}500) + (30 \times 12{,}000) + (21 \times 12{,}000)}{78}$ $\text{Mean} = \frac{1{,}569{,}000}{78}$ $\mathbf{Mean} = \$\mathbf{20{,}115.4}$
The new mode	Since 21 clerks had pay raise, making the **new mode $12,000** with the highest total number of employees (51) **New mode = $ 12,000**
The new median	Median will be at position 39 and 40. Value at 39th position = $12,000 Value at 40th position = $12,000 **New median is $12,000**

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Question 3 (2 points)
The president decided to make the numbers look nicer by increasing his own salary only. What should be his new salary if he wants to increase the average salary by $2000?

Let:
x = president's new salary
new mean = $19,000 + $2,000 = $21,000

$$21{,}000 = \frac{x + 1{,}332{,}000}{78}$$

$$\boldsymbol{x = \$306{,}000}$$

Question 4 (6 points)
The president has come up with another plan, which is to address the ask of the biggest group only - the workmans. He decided to raise their pay to 13,000. What would be the new mean, mode and median?

Measurement	Calculation
The new mean	$$\text{Mean} = \frac{(1 \times 150{,}000) + (2 \times 90{,}000) + (3 \times 60{,}000) + (3 \times 45{,}000) + (3 \times 30{,}000) + (6 \times 17{,}500) + (3 \times 14{,}000) + (6 \times 12{,}500) + (30 \times 13{,}000) + (15 \times 8{,}000) + (6 \times 7{,}500)}{78}$$ $$\text{Mean} = \frac{1{,}512{,}000}{78}$$ $$\boldsymbol{\text{Mean} = \$19{,}384.62}$$
The new mode	**New mode = $13,000**

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The new median	Median will be at position 39 and 40. Value at 39th position = $13,000 Value at 40th position = $13,000 **New median is $13,000**

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Question 5 (2 points)

If you are the leader of the employees, what are the statistics that you would suggest Mr. Cook to look into before making a decision? Why?

Referring to median and mode would be best. These measurements are not affected by outliers with high extreme values like the president and higher executives' salary. Hence, will better represent the majority of worker's salary.

The mean would be affected by high extreme values causing it to have a higher value as well.