
Suzi's Company

This problem gives you the chance to:

- calculate and interpret mean, medium and mode in a given table of realistic data
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Suzi is the chief executive of a small company, TechScale, which makes technical instruments. Fifteen people, including Suzi, work in the company. The table shows the jobs and their annual salaries.

<i>Job Title</i>	<i>Number of people</i>	<i>Annual salary</i>	<i>Total</i>
Chief Executive	1	\$100 000	\$100 000
Marketing Manager	1	\$80 000	
Production Manager	1	\$80 000	
Technician	3	\$50 000	\$150 000
Office worker	2	\$40 000	\$80 000
Assembly worker	5	\$30 000	
Cleaner	2	\$20 000	
<i>Total</i>	15	<i>Total</i>	

1. a. Complete the final column of the table to find the total annual salary bill for TechScale.

b. Use your answer to question 1a to calculate the mean annual salary for the 15 employees in the company. Give your answer correct to the nearest \$.

\$ _____

Show your calculations.

2. John looks at the table and says, “The mode of the salary at TechScale is eighty thousand dollars a year.”

a. What mistake has John made?

b. What is the correct mode of the salary?

3. a. What is the median annual salary at TechScale?

b. Explain how you figured it out.

4. Which of the three averages, mean, median or mode, would you use to show that the average wage at TechScale is very good?

Explain your answer.

5. Last year, TechScale did not do very well so Suzi decided not to pay herself any salary for a year.

Which of the averages (mean, median and mode) will **not** change?

Suzi's Company		Rubric										
The core elements of performance required by this task are: • calculate and interpret mean, median and mode in a given table of realistic data Based on these, credit for specific aspects of performance should be assigned as follows		points	section points									
1.a Table completed correctly. Gives correct answer: total \$680 000	<table border="1"> <tr><td><i>Total</i></td></tr> <tr><td>\$100 000</td></tr> <tr><td>\$80 000</td></tr> <tr><td>\$80 000</td></tr> <tr><td>\$150 000</td></tr> <tr><td>\$80 000</td></tr> <tr><td>\$150 000</td></tr> <tr><td>\$40 000</td></tr> <tr><td>\$680 000</td></tr> </table>	<i>Total</i>	\$100 000	\$80 000	\$80 000	\$150 000	\$80 000	\$150 000	\$40 000	\$680 000	1	
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\$100 000												
\$80 000												
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\$80 000												
\$150 000												
\$40 000												
\$680 000												
b Gives correct answer: \$45 333 and shows calculation <u>680000</u> 15		1										
		1ft	3									
2.a Gives correct explanation such as: He has not looked at how many people earn each salary		1										
b Gives correct answer: \$30 000		1	2									
3.a Gives correct answer: \$40 000		1										
b There are 15 people. The middle person, the 8 th person, gets \$40 000. This point is dependent on giving a correct answer to 3.a.		1	2									
4. Gives correct answer: Mean Gives correct explanation such as: That is the highest of the three.		1ft										
		1ft	2									
5.a Gives correct answer: Mode		1	1									
Total Points			10									