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Answer Key

AP Statistics – Classwork

Chapter 5

Here are the weekly payrolls for two imaginary restaurants, Mooseburgers and McTofu.

Mooseburgers		McTofu	
Al	\$123	Ken	\$110
Boris	\$136	Latisha	\$115
Connie	\$144	Maria	\$130
Dwight	\$150	Nate	\$100
Ernie	\$110	Otto	\$120
Francois	\$131	Pablo	\$146
Gloria	\$140	Quentin	\$117
Horace	\$160	Rosa	\$129
Isaac	\$120	Sally	\$360
Juan	\$130	Ted	\$132
		Uta	\$107

1. Find the 5-number summaries.

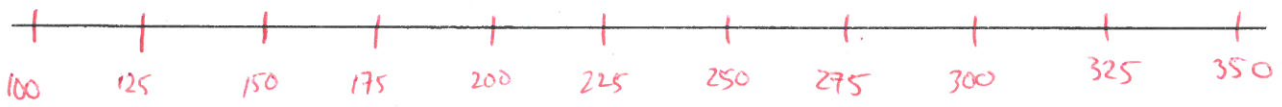
5 pts.

Statistic	M-burgers	McTofu
Min	110	100
Q1	123	110
Median	133.5	120
Q3	144	132
Max	160	360

2. Create parallel boxplots. Label your graph clearly.

5 pts.

WEEKLY PAYROLLS



3. Write a few sentences comparing the distributions.

5 pts.

- ★ Both seem symmetric w/ same range of about \$50
- ★ w/ the exception of an outlier in McTofu of \$360 (Sally)
- ★ M-Burgers has a higher "center" (median)
- ★ and appears to pay better overall.

1 pt.

4. Which restaurant pays the higher average salary?

McTofu

5. Why is the mean salary misleading?

2 pts.

Sally's salary of 360 is an outlier (show rule) which pulls the mean up, causing a misleading average

6. At which restaurant would you rather work? Give a sound statistical justification for your decision.

2 pts.

M-BURGERS because the salary is, overall, typically higher throughout (w/ the exception of Sally)