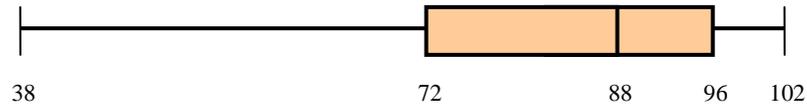


Name _____ Period _____

Interpreting a Box & Whisker Plot

For questions 1 – 5, refer to the box & whisker graph below which shows the test results of a math class.

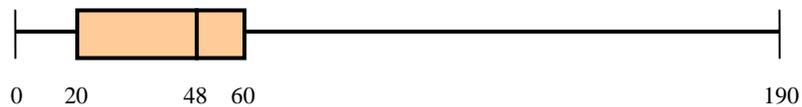
Test Scores (as %) for 9th Period



- _____ 1. What was the high score on the test?
- _____ 2. What percent of the class scored above a 72?
- _____ 3. What was the median score on the test?
- _____ 4. What percent of the class scored between 88 & 96?
5. Do you think that this test was too hard for the students? Explain.

For questions 7 – 10 refer to the box & whisker graph below that shows how much time was spent per night on homework for sophomore class at a certain high school during September.

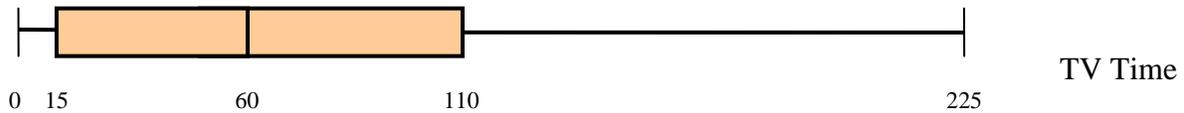
Average Minutes Per Night Spent On Homework



- _____ 7. What percent of the sophomores spend more than 60 minutes on homework per night?
- _____ 8. What is the range of times that the middle 50% of the sophomores spend on homework per night?
- _____ 9. How many sophomores do not do homework?
- _____ 10. What percent of the sophomores spend less than 20 minutes per night on homework?

For questions 12 – 23, refer to the box & whisker graphs below that compare homework time per night with TV time per night for the same group of sophomores.

TV & Homework Minutes per Night



- _____ 12. What percent of the sophomores watch TV for at least 15 minutes per night?
- _____ 13. What is the 3rd quartile for the TV time data?
14. Is it more common for a sophomore at this high school to spend more than 1 hour on homework or more than 1 hour watching TV? Explain.

For questions 15 – 23, identify if each statement is true, false, or cannot be determined.

- _____ 15. Some sophomores didn't watch TV that month.
- _____ 16. The TV box & whisker graph contains more data than the homework graph.
- _____ 17. 25% of the sophomores spend between 48 & 60 minutes per night on homework.
- _____ 18. 15% of the sophomores didn't watch TV that month.
- _____ 19. In general, these sophomores spend more time watching TV than doing homework.
- _____ 20. The TV data is more varied than the homework data.
- _____ 21. The ratio of sophomores who spend more than 110 minutes per night watching TV to those who spend less is about 2:1.
- _____ 22. 225 sophomores watch TV.
- _____ 23. Twice as many sophomores watch TV for more than 1 hour than do homework for more than 1 hour.

For question 25, refer to the box & whisker graphs below that show the average monthly high temperatures for Milwaukee, Wisconsin & Honolulu, Hawaii.

Average Monthly High Temperatures



25. Complete the table using the box and whisker plots for Honolulu and Milwaukee.

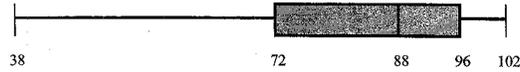
| | Milwaukee | Honolulu |
|---------------------|-----------|----------|
| Median | | |
| Minimum | | |
| Maximum | | |
| Lower quartile | | |
| Upper quartile | | |
| Interquartile range | | |

Name _____ Period _____

Interpreting a Box & Whisker Plot

For questions 1 – 5, refer to the box & whisker graph below which shows the test results of a math class.

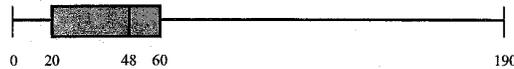
Test Scores (as %) for 9th Period



- 102 1. What was the high score on the test?
- 75% 2. What percent of the class scored above a 72?
- 88 3. What was the median score on the test?
- 25% 4. What percent of the class scored between 88 & 96?
- 5. Do you think that this test was too hard for the students? Explain.

For questions 7 – 10 refer to the box & whisker graph below that shows how much time was spent per night on homework for sophomore class at a certain high school during September.

Average Minutes Per Night Spent On Homework

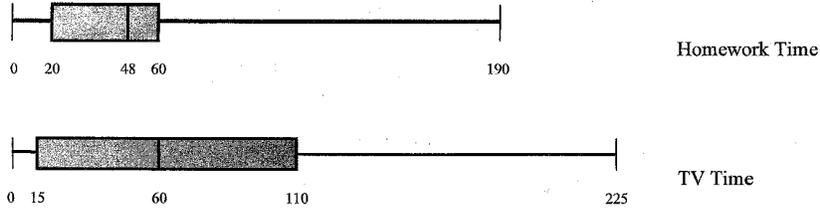


- 25% 7. What percent of the sophomores spend more than 60 minutes on homework per night?
- 40 min ⁶⁰⁻²⁰ 8. What is the range of times that the middle 50% of the sophomores spend on homework per night?
- Can't tell 9. How many sophomores do not do homework?
- 25% 10. What percent of the sophomores spend less than 20 minutes per night on homework?

Box & Whisker

For questions 12 – 23, refer to the box & whisker graphs below that compare homework time per night with TV time per night for the same group of sophomores.

TV & Homework Minutes per Night



- 75% 12. What percent of the sophomores watch TV for at least 15 minutes per night?
- 110 min. 13. What is the 3rd quartile for the TV time data?
14. Is it more common for a sophomore at this high school to spend more than 1 hour on homework or more than 1 hour watching TV? Explain.

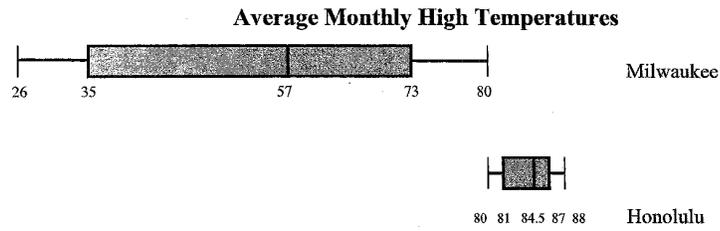
It is more common for a sophomore to watch TV because 50% of the students watch greater than 1 hour of TV, but only 25% spend greater than 1 hour on H.W.

For questions 15 – 23, identify if each statement is true, false, or cannot be determined.

- T 15. Some sophomores didn't watch TV that month.
- C.B.D. 16. The TV box & whisker graph contains more data than the homework graph.
- T 17. 25% of the sophomores spend between 48 & 60 minutes per night on homework.
- C.B.D. 18. 15% of the sophomores didn't watch TV that month.
- T 19. In general, these sophomores spend more time watching TV than doing homework.
- T 20. The TV data is more varied than the homework data.
- F 21. The ratio of sophomores who spend more than 110 minutes per night watching TV to those who spend less is about 2:1.
- C.B.D. 22. 225 sophomores watch TV.
- T 23. Twice as many sophomores watch TV for more than 1 hour than do homework for more than 1 hour.

Box & Whisker

For question 25, refer to the box & whisker graphs below that show the average monthly high temperatures for Milwaukee, Wisconsin & Honolulu, Hawaii.



25. Complete the table using the box and whisker plots for Honolulu and Milwaukee.

| | Milwaukee | Honolulu |
|---------------------|-----------------------|----------------------|
| Median | 57°F | 84.5°F |
| Minimum | 26°F | 80°F |
| Maximum | 80°F | 88°F |
| Lower quartile | 35°F | 81°F |
| Upper quartile | 73°F | 87°F |
| Interquartile range | ⁷³⁻³⁵ 38°F | ⁸⁷⁻⁸¹ 6°F |