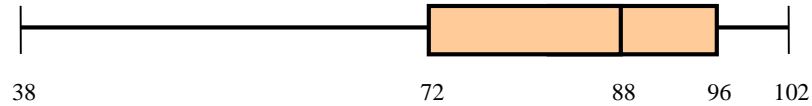


16.2 Box & Whisker Comparison

For questions 1 – 6, refer to the box & whisker graph below which shows the test results of a math class.

Test Scores (as %) for 6th Period

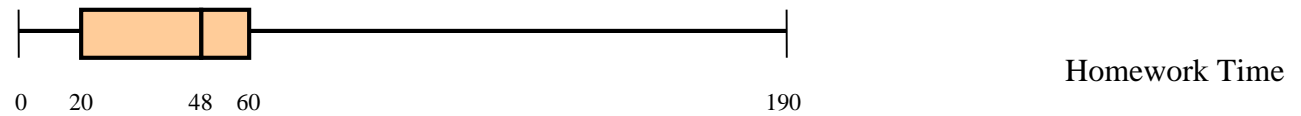


- _____ 1. What was the high score on the test?
- _____ 2. What percent of the class scored above a 72?
- _____ 3. What was the median score on the test?
- _____ 4. What percent of the class scored between 88 & 96?
5. Do you think that this test was too hard for the students? Explain.

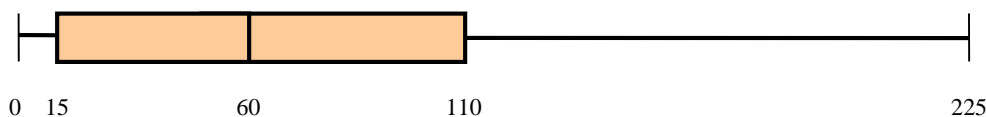
6. Would you expect the mean to be above or below the median? Explain.

For questions 7 – 18, 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



Homework Time



TV Time

- _____ 7. What percent of the sophomores watch TV for at least 15 minutes per night?
- _____ 8. What is the 3rd quartile for the TV time data?

9. 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 10 – 18, identify if each statement is true, false, or cannot be determined.

- _____ 10. Some sophomores didn't watch TV that month.
- _____ 11. The TV box & whisker graph contains more data than the homework graph.
- _____ 12. 25% of the sophomores spend between 48 & 60 minutes per night on homework.
- _____ 13. 15% of the sophomores didn't watch TV that month.
- _____ 14. In general, these sophomores spend more time watching TV than doing homework.
- _____ 15. The TV data is more varied than the homework data.
- _____ 16. The ratio of sophomores who spend more than 110 minutes per night watching TV to those who spend less is about 2:1.
- _____ 17. 225 sophomores watch TV.
- _____ 18. Twice as many sophomores watch TV for more than 1 hour than do homework for more than 1 hour.

For questions 19 – 35, refer to the following data that shows the total number of points scored in each of the rose bowls from 1970 until 2006.

Year	Total Points	Year	Total Points	Year	Total Points	Year	Total Points
1970	13	1980	33	1990	27	2000	26
1971	44	1981	29	1991	60	2001	58
1972	25	1982	28	1992	48	2002	51
1973	59	1983	38	1993	69	2003	48
1974	63	1984	54	1994	37	2004	42
1975	35	1985	37	1995	58	2005	75
1976	33	1986	73	1996	73	2006	79
1977	20	1987	37	1997	37	2007	50
1978	47	1988	37	1998	37		
1979	27	1989	36	1999	69		

19. Make a box & whisker graph for the total points scored in each decade. Make sure your 4 graphs are drawn with the same scale so you can compare them.

Refer to your box & whisker graphs to answer the following questions.

- _____ 20. In which decade is the total points scored the most consistent?
- _____ 21. In which decade is the total points scored the most diverse?
- _____ 22. In which decade is the largest number of total points scored?
- _____ 23. In which decade is the 3rd quartile the highest?
- _____ 24. In which decade is the median the highest?
- _____ 25. In which decade is the 1st quartile the highest?
- _____ 26. In which decade is the outlier the most dramatic? Explain.

- _____
- _____
27. What is the general trend that your 4 box & whisker graphs reveal?
- _____
- _____

28. Come up with two data sets that each have 5 elements, each have a mean & a median of 9, but whose box & whisker graphs would be dramatically different.