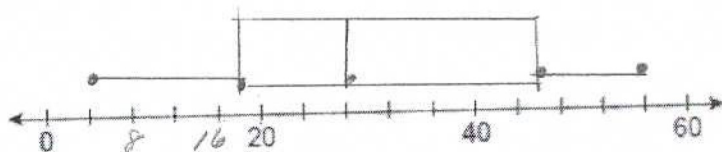


CLASSWORK: TWO-WAY TABLES & STATS REVIEW

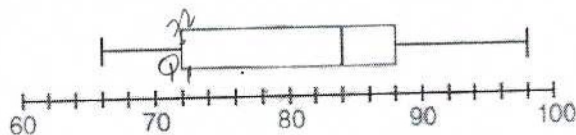
Name: Key May 8 glue on page 40

14. The data set 20, 36, 52, 56, 24, 16, 40, 4, 28 represents the number of books purchased by nine book club members in a year. Construct a box plot for these data on the number line below.

min = 4 Q3 = 44
 Q1 = 18 max = 56
 med = 28



15. The box-and-whisker plot below represents the math test scores of 20 students.

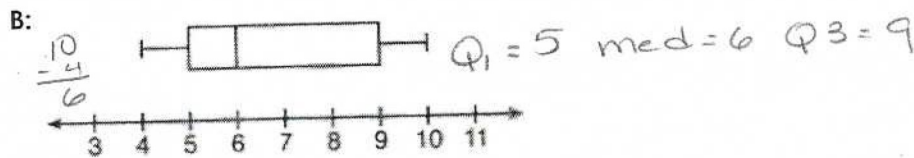


What percentage of the test scores are less than 72?

- 1) 25 2) 50 3) 75 4) 100

16. Below are two representations of data.

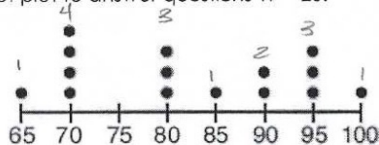
A: 2, 5, 5, 6, 6, 6, 7, 8, 9
 $\bar{x} = 6$ $s_x = 1.9$ median = 6
 $Q_1 = 5$ $Q_3 = 7.5$



Which statement about A and B is true?

- 1) median of A > median of B $6 > 6$
 2) range of A < range of B $7 < 6$
 3) upper quartile of A < upper quartile of B $7.5 < 9$
 4) lower quartile of A > lower quartile of B $5 > 5$

The dot plot shown below represents the test scores in a social studies class. Use the dot plot to answer questions 17 – 20.



17. How many students took the test? 15
18. What is the mean of the class? Round to the nearest whole number.
 $\frac{\text{Sum} = 1235}{\text{Total} = 15} = 82.3 \approx 82$
19. What is the standard deviation of the class? Round to the nearest tenth.
 $\sqrt{x} = 11.1$
20. What is the range of the class? $100 - 65 = 35$
21. The freshman class held a canned food drive for 12 weeks. The results are summarized in the table below.

Canned Food Drive Results

Week	1	2	3	4	5	6	7	8	9	10	11	12
Number of Cans	20	35	32	45	58	46	28	23	31	79	65	62

Which number represents the second quartile of the number of cans of food collected? median

- 1) 29.5 2) 30.5 3) 40 4) 60
22. Which set of data is qualitative?
- 1) laps swum in a race
- 2) number of swimmers on the team
- 3) swimmers' favorite swimsuit colors
- 4) temperature in Fahrenheit of the water in a pool
23. An art studio has a list of information posted with each sculpture that is for sale. Each entry in the list could be classified as quantitative except for the #
- 1) cost 2) height 3) artist 4) weight

24. The table below shows the number of SAT prep classes five students attended and the scores they received on the test.

Number of Prep Classes Attended (x)	3	1	6	7	6
Math SAT Score (y)	500	410	620	720	500

State the linear regression equation for this data set, rounding all values to the nearest hundredth.

$$y = 40.48x + 363.81$$

State the correlation coefficient, rounded to the nearest hundredth.

$$r = 0.84$$

State what this correlation coefficient indicates about the linear fit of the data.

Strong positive

Explain what the slope correlation coefficient suggests in the context of this problem.

Your math SAT score will increase by 40 points per 1 class attended.

25. The table below shows the amount of a decaying radioactive substance that remained for selected years after 1990.

Years After 1990 (x)	0	2	5	9	14	17	19
Amount (y)	750	451	219	84	25	12	8

Write an exponential regression equation for this set of data, rounding all values to the nearest thousandth.

$$y = 733.646(0.786)^x$$

Using this equation, determine the amount of the substance that remained in 2002, to the nearest integer.

$$y = 733.646(0.786)^{12}$$

$$y = 41$$