

Review Worksheet for Unit 4 Quiz

Name \_\_\_\_\_ Class Period \_\_\_\_\_

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Know the following statistics vocabulary terms and be able to use them accurately:  
Mean, Median, Mode, Range, Dot Plot, Histogram, First Quartile (Q1), Third Quartile (Q3), Interquartile Range (IQR), Outlier, Box Plot, Mean Absolute Deviation (MAD), Measures of Center, and Measures of Spread

\*Know how to describe the shape of a distribution using the following terms:  
Symmetric, Non-Symmetric, Skewed Left, Skewed Right, Uniform, Bimodal, and Unimodal

\*Know what Two – Way Frequency Charts are and the vocabulary that pertains to them:  
Categorical Data, Quantitative Data, Bivariate Data, Relative Frequency, Joint Frequency, Marginal Frequency, and Conditional Frequency

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Use the following data for # 1 – 11:                      21, 17, 3, 26, 21, 32

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|----------|-----------|---------|
| 1. Mean  | 2. Median | 3. Mode |
| 4. Range | 5. IQR    | 6. Q1   |
| 7. Q3    | 8. MAD    |         |

9. Decide if the data contains any outliers (show your work to support your answer).

10. Create a box plot for the data above.

11. What would be the best measure of **center** for this data? Explain.

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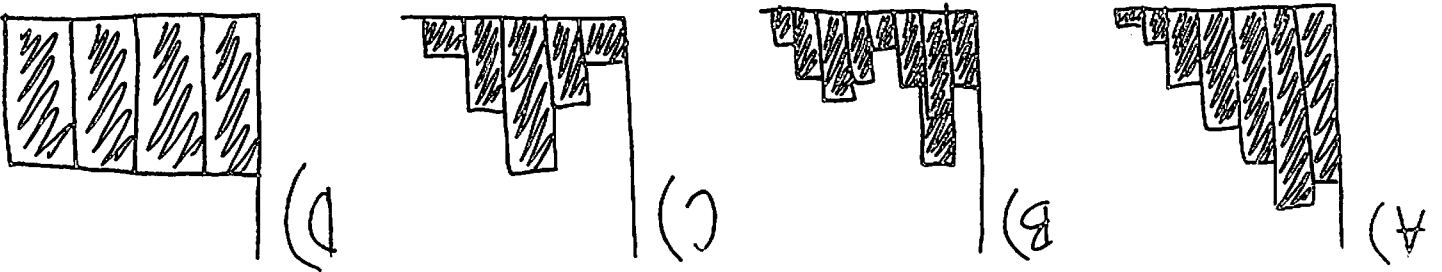
12. Julie made an 89, 76, 93, and 87 on the first 4 tests of the semester. What grade does she need to make on the 5<sup>th</sup> test in order to get her test average up to an 88%?

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13. Use the table to determine the **interval** that would include the median of the data set.

Interval	Frequency
0-5	4
6-11	2
12-17	1
18-23	6
24-29	7

14. Describe the **shape** of the following histograms.



Toby surveys his friends to see which form of exercise they like best. The responses are recorded in the table below.

Exercise	Gender	Males	Females	Totals
Running		14	11	
Biking		10	13	
Hiking		5	2	
	Totals			

15. What is the **joint frequency** of females who prefer to run?

16. What is the **joint frequency** of males who prefer to hike?

17. What is the **marginal frequency** of each exercise?

18. Given that a friend is female, what is the **conditional frequency** she prefers hiking?

19. Given that a friend is male, what is the **conditional frequency** he prefers biking?

**Cumulative Review:**

Write a story that relates to the equation.

20.  $x + 4 = 25$

21.  $\frac{x}{3} = 15$

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22. A car travels 180 miles in 4 hours. Use dimensional analysis to convert the car's speed to feet per minute.

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Solve the following equations.

23.  $\frac{5}{9}x = 35$

24.  $\frac{1}{3}(6x + 15) = x - 8$

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25. The Basketball Birthday Hoops Package costs \$184. The package includes tickets, drinks, and cake for a group of 8 children. Write and solve an equation to find the cost per child.