

SAINT DOMINIC ACADEMY
MATHEMATICS DEPARTMENT



ENTERING AP STATISTICS/STATISTICS
2023 SUMMER PACKET

DUE ON THE FIRST DAY OF SCHOOL

DIRECTIONS

Solve all problems. Show all necessary and complete work in PENCIL.
Write legibly and as neatly as possible.

Cheating is prohibited.

CALCULATOR IS NOT ALLOWED

Name: _____

Signature: _____

AP STATISTICS/ STATISTICS

Summer Assignment

Please print this packet using both sides of the paper.

Name: _____

I hope you are all enjoying your first few days of summer! Here is your summer work packet for your upcoming Statistics course.

Going into AP Statistics/Statistics, you will find out that the most challenging parts are not the calculations. This is a course that is not just about finding numbers but using them and understanding them which may require you to think about math in a different way than you are used to. The AP Statistics is also challenging because it is a college level course, so you will need to have a college level work ethic.

This packet is due on the first day of school in September. It will be graded. You need to get off to a good start so spend some quality time on this packet this summer.

It is a mistake to decide to do this now. Let it go until mid-summer. I want these vocabulary words and some techniques to be relatively fresh in your mind in the fall. Also, do not wait to do them at the very last minute. These take time.

After reading all of the material above you should be able to complete the questions in the remaining pages of this packet. You should do so in the spaces provided.

If you have questions about any of these problems, contact me at the school email address. Have a good summer and see you in the fall.

Be safe, be motivated, do the right thing. Enjoy your summer!

Mrs. Patiak

Name: _____

Part 1: Reading and Vocabulary

You will use a free online Statistical tutoring site and the summer assignment videos below. While reviewing the information on the site and videos, you will be completing a vocabulary list. You may use other online resources.

Summer assignment videos:

SUMMER VIDEO ONE:

https://www.youtube.com/watch?feature=player_detailpage&v=XPmTISOdPJs

SUMMER VIDEO TWO:

https://www.youtube.com/watch?feature=player_detailpage&v=j_Y_0eh-FCQ

Follow the steps below:

1. Go to www.stattrek.com
2. Click on “AP Statistics” then “AP Tutorial”
3. On the left side of the screen is a list of general topics. Under each general topic are a list of subtopics. You will be looking under the major topic “Exploring Data”.

Vocabulary List:

Please define each of the following terms from the information on the stattrek website. When asked provide an example.

1. Descriptive Statistics:

2. Inferential Statistics:

3. Categorical Variables:

Example:

4. Quantitative Variables:

Example:

5. Discrete Variables:

6. Continuous:

7. Univariate Data:

8. Bivariate Data:

9. Population:

Example:

10. Sample:

Example:

11. Median:

12. Mean:

Formula:

13. Outlier:

14. Parameter:

15. Statistic:

16. Census:

17. Range:

18. Center:

19. Unimodal:

Sketch:

20. Bimodal:

Sketch:

Part 2: Practice Problems

1. Categorical or Quantitative:

Determine if the variables listed below are quantitative/numerical or categorical/qualitative.

a. Amount of money earned last week: _____

b. Arm span: _____

c. Birthdate: _____

d. Dominant hand reaction time: _____

e. Favorite sport: _____

f. Height: _____

g. Hours slept per night: _____

h. Language spoken at home: _____

i. Foot length: _____

j. Zip code: _____

k. State of residence: _____

l. Travel method to school: _____

m. Travel time to school: _____

n. Grade: _____

2. Summary Statistics

- a. Determine the given statistics from the data below on the number of homeruns that Mark McGuire hit in each season from 1982-2001.

70	52	22	49	3	32	58	39
39	65	42	29	9	32	9	33

Mean	
Standard Deviation	
Minimum	
Maximum	
Median	
Q1	
Q3	
Range	
IQR	

- b. Using the 1.5 IQR Rule, determine if there are any outliers in this data

3. Where do older people live?

This table gives the percentage of residents aged 65 or older in each of the 50 states.

State	Percent	State	Percent	State	Percent
Alabama	13.1	Louisiana	11.5	Ohio	13.4
Alaska	5.5	Maine	14.1	Oklahoma	13.4
Arizona	13.2	Maryland	11.5	Oregon	13.2
Arkansas	14.3	Massachusetts	14.0	Pennsylvania	15.9
California	11.1	Michigan	12.5	Rhode Island	15.6
Colorado	10.1	Minnesota	12.3	South Carolina	12.2
Connecticut	14.3	Mississippi	12.2	South Dakota	14.3
Delaware	13.0	Missouri	13.7	Tennessee	12.5
Florida	18.3	Montana	13.3	Texas	10.1
Georgia	9.9	Nebraska	13.8	Utah	8.8
Hawaii	13.3	Nevada	11.5	Vermont	12.3
Idaho	11.3	New Hampshire	12.0	Virginia	11.3
Illinois	12.4	New Jersey	13.6	Washington	11.5
Indiana	12.5	New Mexico	11.4	West Virginia	15.2
Iowa	15.1	New York	13.3	Wisconsin	13.2
Kansas	13.5	North Carolina	12.5	Wyoming	11.5
Kentucky	12.5	North Dakota	14.4		

Finish the chart of bin widths, then fill in the frequency, relative frequency, and cumulative frequency table columns.

Bin Widths	Frequency	Relative Frequency	Cumulative Frequency
4 to <6			
6 to <8			
8 to <10			