Name _____ Date _____ Pd_____

Notes Chapter 8

It's TIME for your NOTES, Your Handy Dandy NOTES!!

Lesson 8-2

Measures of Central Tendency (Pg 402-408)

Measure of Central Tendency:

1) Median (_____) =

Ex:1 3, 5, 5, 3, 4

Ex:2 44, 52, 45, 55, 53, 48

2) Mean (_____) =

Ex:3 3, 5, 5, 3, 4

Ex:4 44, 52, 45, 55, 53, 48

3) Mode (_____) =

Ex:5 3, 5, 5, 3, 4

Ex:6 44, 52, 45, 55, 53, 48

Range =

Ex:7 3, 5, 5, 3, 4

Ex:8 44, 52, 45, 55, 53, 48

Check for Understanding

Ex:9 Find all measures of central tendency for the following data. Find the range. $19, 17, 22, 24, 16, 13$

Name _____ Date _____ Pd_____

Lesson 8-4

Bar Graphs & Histograms (p415-421)

Steps: 1) 2) 3)
4)

Bar Graph:

Ex:1 **Make a bar graph for the data.**

Top scores of the Super Bowl

Teams	Scores
San Francisco	55
Dallas	52
Tampa Bay	48
Chicago	46
Washington	42

Histogram:

Ex:2 **Make a histogram for the data.**

Super Bowl scores

54, 32, 35, 17, 18, 42, 27, 28, 35, 45,
48, 35, 46, 18, 28, 24, 36, 58, 38, 18

Scores	Frequency
11-20	
21-30	
31-40	
41-50	
51-60	

NAME _____ DATE _____ PERIOD ____

8-8 Lesson Reading Guide

Using Sampling to Predict

Get Ready for the Lesson

Read the introduction at the top of page 438 in your textbook. Write your answers below.

1. Suppose she decides to survey the listeners of a rock radio station. Do you think the results would represent the entire population? Explain.

2. Suppose she decides to survey a group of people standing in line for a symphony. Do you think the results would represent the entire population? Explain.

3. Suppose she decides to mail a survey to every 100th household in the area. Do you think the results would represent the entire population? Explain.

Read the Lesson

4. Match the type of sample with its example(s). Put the correct letter on the line.

simple random sample	_____	**a.** One or more parts of the population are favored over others.
biased sample	_____	**b.** Only those who volunteer take a survey.
unbiased sample	_____	**c.** Names are picked randomly out of a hat.
convenience sample	_____	**d.** A store manager surveys his first 20 customers.
voluntary response sample	_____	**e.** A sample that is representative of the entire population.

Remember What You Learned

5. If you are conducting a survey, explain why it is important to have an unbiased sample.

Lesson 8-2

(p402-408) Measures of Central Tendency & Range

(3) **Measure of Central Tendency: A number from a set of data used to describe the CENTER**

① MEDIAN (MIDDLE) = The middle number in a set of data ordered from least to greatest

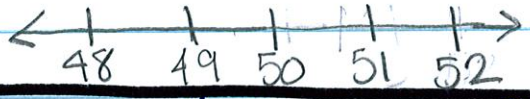
Example: 3 muffins, 5 muffins, 1 muffin

(odd amount of numbers) → 1, (3), 5 **MEDIAN = 3**

Example: 44, 46, (48, 52), 53, 55

(average when have even amount of numbers)

$48+52 = \frac{100}{2} =$ **50 = MEDIAN**



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② MEAN (AVERAGE): The sum (+) of the data divided the number of items

Example: $1+3+5=9$ ① Add all the numbers

$\frac{9}{3} =$ **3 = MEAN** ② Divide by the number of items

③ MODE: The number that occurs the most often

Example: 1, 1, 2, 2, 2, 4, 5, 5

MODE: 2

Example: 1, 3, 5

NO MODE

Example: 1, 1, 4, 5, 5

MODE: 1, 5

Range: The difference (−) between the greatest and least numbers in a set

Example: 5 − 1 = 4

Lesson 8-4

4/30/12 Bar Graphs & Histograms (p415-421)

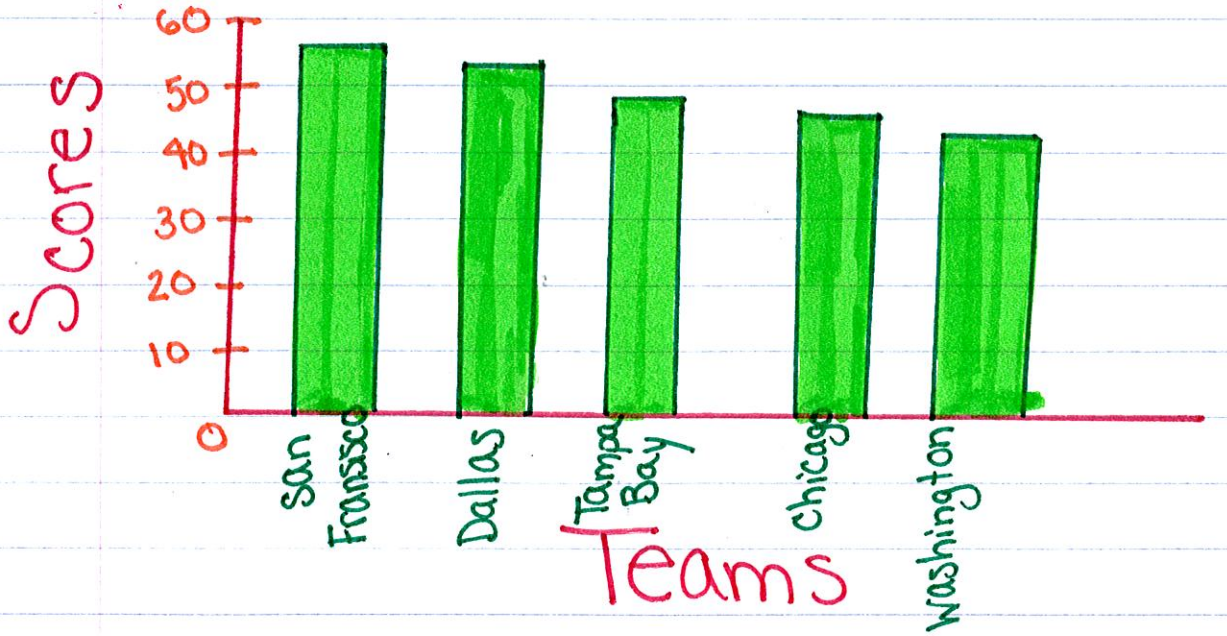
Bar Graph: a way to visually represent data by using <u>solid</u> bars so that the numbers can easily be compared

Teams (x-axis)	Scores (y-axis)
San Fransisco	55
Dallas	52
Tampa Bay	48
Chicago	46
Washington	42

1. Title
2. Draw & label the axes
3. Decide on increments of numbers for the y-axis
4. Draw the solid bars to represent the X-axis

∴ The bars can't touch

Top Scores of the Super Bowl



A special kind of bar graph

Histogram

The bars must touch

• a way to visually represent data by using solid bars that show the frequency of data that has been organized into intervals

x-axis → Scores	y-axis → Frequency
11-20	3
21-30	4
31-40	7
41-50	4
51-60	2

Frequency of Super Bowl Scores

Lesson 8-5

Using Graphs (p 424-425)

Q: Why do we use graphs?

A: → Visual Representation that makes the data organized & easier to read

↳ Helps us make good conclusions, predictions, & inferences from the data

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Students now use Teacher charts (2) 424a to make 5 questions to ask another groups. (2 groups)

NAME _____ DATE _____ PERIOD ____

8-8 Lesson Reading Guide

Using Sampling to Predict

Get Ready for the Lesson

Read the introduction at the top of page 438 in your textbook. Write your answers below.

1. Suppose she decides to survey the listeners of a rock radio station. Do you think the results would represent the entire population? Explain.

2. Suppose she decides to survey a group of people standing in line for a symphony. Do you think the results would represent the entire population? Explain.

3. Suppose she decides to mail a survey to every 100th household in the area. Do you think the results would represent the entire population? Explain.

Read the Lesson

4. Match the type of sample with its example(s). Put the correct letter on the line.

simple random sample	_____	**a.** One or more parts of the population are favored over others.
biased sample	_____	**b.** Only those who volunteer take a survey.
unbiased sample	_____	**c.** Names are picked randomly out of a hat.
convenience sample	_____	**d.** A store manager surveys his first 20 customers.
voluntary response sample	_____	**e.** A sample that is representative of the entire population.

Remember What You Learned

5. If you are conducting a survey, explain why it is important to have an unbiased sample.

NAME Answer Key DATE _____ PERIOD ____

8-8 Lesson Reading Guide

Using Sampling to Predict

Get Ready for the Lesson

Read the introduction at the top of page 438 in your textbook. Write your answers below.

1. Suppose she decides to survey the listeners of a rock radio station. Do you think the results would represent the entire population? Explain.

No, listeners of a Rock Radio Station probably perfer a Rock music Ring tone more than others.

2. Suppose she decides to survey a group of people standing in line for a symphony. Do you think the results would represent the entire population? Explain.

No, people standing in line for a symphony probaby perfer a classic music Ring tone more than others.

3. Suppose she decides to mail a survey to every 100th household in the area. Do you think the results would represent the entire population? Explain.

yes, people of all ages and backgrounds are more likely to be represented.

Read the Lesson

4. Match the type of sample with its example(s). Put the correct letter on the line.

simple random sample	c	**a.** One or more parts of the population are favored over others.
biased sample	a	**b.** Only those who volunteer take a survey.
unbiased sample	e	**c.** Names are picked randomly out of a hat.
convenience sample	d	**d.** A store manager surveys his first 20 customers.
voluntary response sample	b	**e.** A sample that is representative of the entire population.

Remember What You Learned

5. If you are conducting a survey, explain why it is important to have an unbiased sample.

Only through an unbiased sample can Results be valid.