

Name \_\_\_\_\_

AP Statistics Homework: Chapter 9 Day 1

Learning AP Statistics Question Stems

In addition to learning the Statistics required for the AP exam, it is very useful to learn what the AP graders expect for your responses to various prompts. On the reverse of this sheet, there is a chart of different ways that the AP exam uses the words “describe.” The column on the left has many examples of directions taken straight from AP exams from 2003 to 2010. You will be analyzing the direction of “describe” using the prompts below.

1. Please fill in the rest of the chart. Using the first two rows as an example, fill in what the question is asking you to *describe*. Put a check mark in the third column if you remember learning this. Then use the last column to write down what you don’t yet know in this prompt. Note: There might be some words in the prompt that are specific to the context of that problem. You should ignore those.
2. Analyze your filled-in chart. What are some overall things you can say about how the AP exam uses the word *describe*?
3. What are characteristics of a “4” answer (remember that a 4 is a perfect score on an FRQ)? Be general here. What would make a good answer for any of these prompts?
4. Do you think all right answers be the same for each question? (To do this, look at a prompt that you’ve learned about. Do you think all right answers are the same for this prompt.)
5. Any other comments, observations, or questions you have?

## AP STATS DIRECTION: DESCRIBE

What the AP Says	What I have to describe (2-4 words)	Check here if you've learned this	Questions or words you don't know
Describe the sampling distribution of the sample mean song lengths for random samples of 40 rock-and-roll songs.	<i>The sampling distribution</i>		<i>Sampling distribution</i>
Describe Type I and Type II errors and the consequences of each in the context of this study, and discuss which one you think is more serious.	<i>Type I and II errors and their consequences</i>		<i>Type I and II errors</i>
Briefly describe a sampling method for randomly selecting 2,000 owners that will ensure at least 12 owners will be selected for each of the 5 car models.			
Describe differences and similarities in the hurricane damage amounts among the three regions.			
Describe a simple random sampling procedure that the administrators could use to select 200 students from the 2,500 students in the district.			
Describe one statistical advantage of using a stratified random sample over a simple random sample in the context of this study.			
Describe a characteristic of the distribution of aldrin concentrations in River X that can be seen in the stemplot but cannot be seen in the boxplot.			
Describe a method for assigning the 24 students to two groups of equal size that allows for a statistically valid comparison of the two instructional programs.			
Use your stemplot to describe the main features of this score distribution.			
Describe the sampling distribution of $\bar{x}$ , including its shape, center, and spread.			
Describe how you could assign window types (A and B) to the numbered window boxes.			
Describe a completely randomized design that will allow the biologist to compare the shrimps' growth after 3 weeks.			
For this survey, state one potential source of bias <u>and</u> describe how it might affect the estimate of the proportion of adult heads of households in the U.S. who do not have a high school diploma.			
Identify a sampling method that will achieve this additional goal <u>and</u> briefly describe a way to select the survey sample using this method.			
Describe the shape of this distribution.			
Describe a randomization process and identify and inference procedure for the study.			
Describe the nature of the relationship between impact rate and age.			
Describe two concerns that should be addressed before making this assumption.			