

Chapter 1 In-Class Review

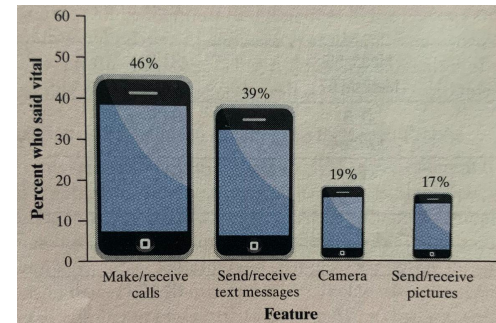
Name: _____

R1.1 Who buys cars? A car dealer keeps records on car buyers for future marketing purposes. The table gives information on the last 4 buyers.

Buyer's name	Zip code	Gender	Buyer's distance from dealer (mi)	Car model	Model year	Price
P. Smith	27514	M	13	Fiesta	2018	\$26,375
K. Ewing	27510	M	10	Mustang	2015	\$39,500
L. Shipman	27516	F	2	Fusion	2016	\$38,400
S. Reice	27243	F	4	F-150	2016	\$56,000

- Identify the individuals in this data set.
- What variables were measured? Classify each as categorical or quantitative.

R1.3 I'd die without my phone! In a survey of over 2000 U.S. teenagers by Harris Interactive, 47% said that "their social life would end or be worsened without their cell phone." One survey question asked the teens how important it is for their phone to have certain features. The following figure displays data on the percent who indicated that a particular feature is vital.



- Explain how the graph gives a misleading impression.
- Would it be appropriate to make a pie chart to display these data? Why or why not?

R1.4 Facebook and age Is there a relationship between Facebook use and age among college students? The following two-way table displays data for the 219 students who responded to the survey.

		Age		
		Younger (18–22)	Middle (23–27)	Older (28 and up)
Facebook user?	Yes	78	49	21
	No	4	21	46

- What percent of the students who responded were Facebook users?
- What percent of the students in the sample were aged 28 or older?
- What percent of the students who responded were older Facebook users?
- What percent of the Facebook users in the sample were younger students?

FRAPPY! FREE RESPONSE AP PROBLEM, YAY!

The following problem is modeled after actual AP Statistics exam free response questions. Your task is to generate a complete, concise response in 15 minutes.

Directions: Show all your work. Indicate clearly the methods you use, because you will be scored on the correctness of your methods as well as on the accuracy and completeness of your results and explanations.

Using data from the 2010 census, a random sample of 348 U.S. residents aged 18 and older was selected. Among the variables recorded were gender (male or female), housing status (rent or own), and marital status (married or not married).

The two-way table below summarizes the relationship between gender and housing status.

	Male	Female	Total
Own	132	122	254
Rent	50	44	94
Total	182	166	348

- a.) What percent of males in the sample own their own home?
- b.) Make a graph to compare the distribution of housing status for males and females.
- c.) Using your graph from part (b), describe the relationship between gender and housing status.
- d.) The two-way table below summarizes the relationship between marital status and housing status.

	Married	Not Married	Total
Own	172	82	254
Rent	40	54	94
Total	212	136	348

For the members of the sample, is the relationship between marital status and housing status stronger or weaker than the relationship between gender and housing status that you described in part (c)? Justify your choice using the data provided in the two-way tables.