

Show all necessary work and place your answers on the spaces provided.

***Dog Preferences.***

To determine if people's preference in dogs had changed in the recent years, organizers of a local dog show asked people who attended the show to indicate which breed was their favorite. This information was compiled by dog breed and gender of the people who responded. The table summarizes the responses.

	Female	Male	Total
<b>Yorkshire Terrier</b>	73	59	<b>132</b>
<b>Dachshund</b>	49	47	<b>96</b>
<b>Golden Retriever</b>	58	33	<b>91</b>
<b>Labrador</b>	37	41	<b>78</b>
<b>Dalmatian</b>	45	28	<b>73</b>
<b>Other breeds</b>	86	67	<b>153</b>
<b>Total</b>	<b>348</b>	<b>275</b>	<b>623</b>

1. Identify the variables and tell whether each is categorical or quantitative.

2. Which of the W's are unknown for these data?

3. Find each percent.

a. What percent of the responses were from males who favor Labradors? \_\_\_\_\_

b. What percent of the male responses favor Labradors? \_\_\_\_\_

c. What percent of the people who choose Labradors were males? \_\_\_\_\_

4. What is the marginal distribution of breeds?

5. Write a sentence or two about the conditional relative frequency distribution of the breeds among female respondents.

6. Do you think the breed selection is independent of gender? Give statistical evidence to support your conclusion.