Name _____

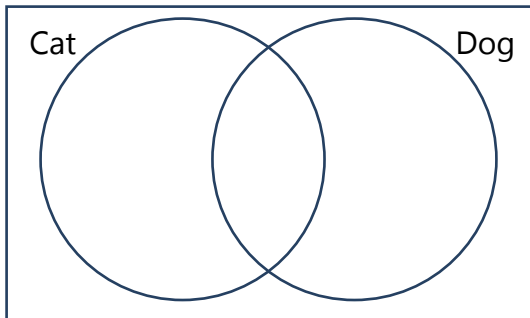<h1 style="text-align:center">4.1: Contingency Tables</h1>

<u>Class Prep Assignment</u>   <u>Due at the beginning of next class</u>

Relating Venn Diagrams to Contingency Tables:

250 households were surveyed and 180 said they have a cat, 95 said they have a dog, and 52 said they have a cat and a dog. Fill in the Venn diagram and the contingency table.

	Dog	No Dog	Total
Cat			
No Cat			
Total			

We will use contingency tables to find 4 types of probabilities: Marginal, AND, OR, Conditional

<u>MARGINAL</u>
>   Find the probability that a randomly selected person from the study has a cat.

>   P(cat) =

<u>AND</u>
>   Find the probability that a randomly chosen person from the study has a cat AND a dog.

>   P(cat AND dog) =

<u>OR</u>
>   Find the probability that a randomly chosen person from the study has a cat OR no dog.

>   P(cat OR no dog) =

<u>CONDITIONAL</u>
>   Given that a person from the study has a dog, what is the chance they have a cat?

>   P(cat given dog) =