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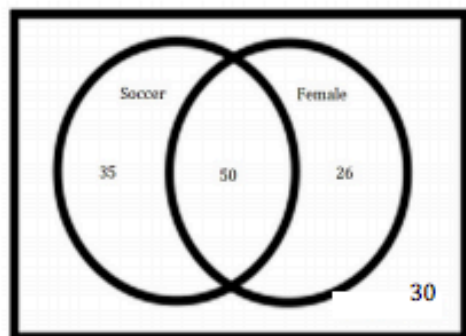
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HOMEWORK 9.2

SECONDARY MATH II

Use the Venn Diagrams below to answer the following questions. (Hint: you may use the same data provided in the two-way table from question 3 on the next page to help make sense of the Venn Diagram)

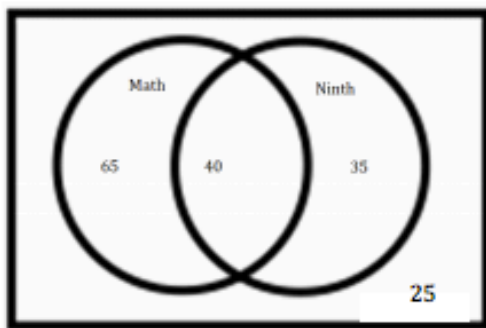
The following Venn Diagram represents the relationship between favorite sport (Soccer or Baseball) and gender (Female or Male).



1. How many people said soccer is their favorite sport?
2. How many females are in the data?
3. How many males chose baseball?
4. What is the probability that a person would say soccer is their favorite sport? $P(\text{soccer}) =$

5. What is the probability that a female would say soccer is their favorite sport? ("Out of all females, ____% say soccer is their favorite sport") $P(\text{soccer} | \text{female}) =$

The following Venn Diagram represents the relationship between favorite subject (Math or Science) and grade level (Ninth or Tenth). Using this data, answer the following questions.



6. How many people said math is their favorite subject?
7. How many tenth graders are in the data?
8. How many ninth graders chose science?
9. What is the probability that a person would say science is their favorite subject? $P(s) = 30$

10. What is the probability that a tenth grader would say science is their favorite subject? ("If you are a tenth grader, then the probability of science being your favorite subject is ____%") $P(\text{science} | \text{tenth}) =$

11. Complete the table and write three conditional statements.

	Soccer	Baseball	Total
Male		30	
Female	50		76
Total	85		

12. Complete the table about preferred genre of reading and write three conditional statements.

	Fiction	Non-Fiction	Total
Male		10	
Female	50		60
Total	85		

13. Complete the table about favorite color of M&M's and write three conditional statements.

	Blue	Green	Red	Other	Total
Male	15	20	15		60
Female	30	20		10	
Total	45				130

14. Use the information provided to make a tree diagram, a two-way table and a Venn Diagram.
Data was collected at the movie theater last fall. Not about movies but clothes.

- 6,525 people were observed
- 3,123 had on shorts and the rest had on pants
- 45% of those wearing shorts were denim
- Of those wearing pants 88% were denim

Answers: 1. 85
3. 30

$$5. P(\text{soccer} | \text{female}) = \frac{50}{76} = 0.66$$

6. 105

$$9. P(s) = \frac{60}{165} = 0.36$$

11–13: Make sure to write 3 statements

14: you need all 3 diagrams

