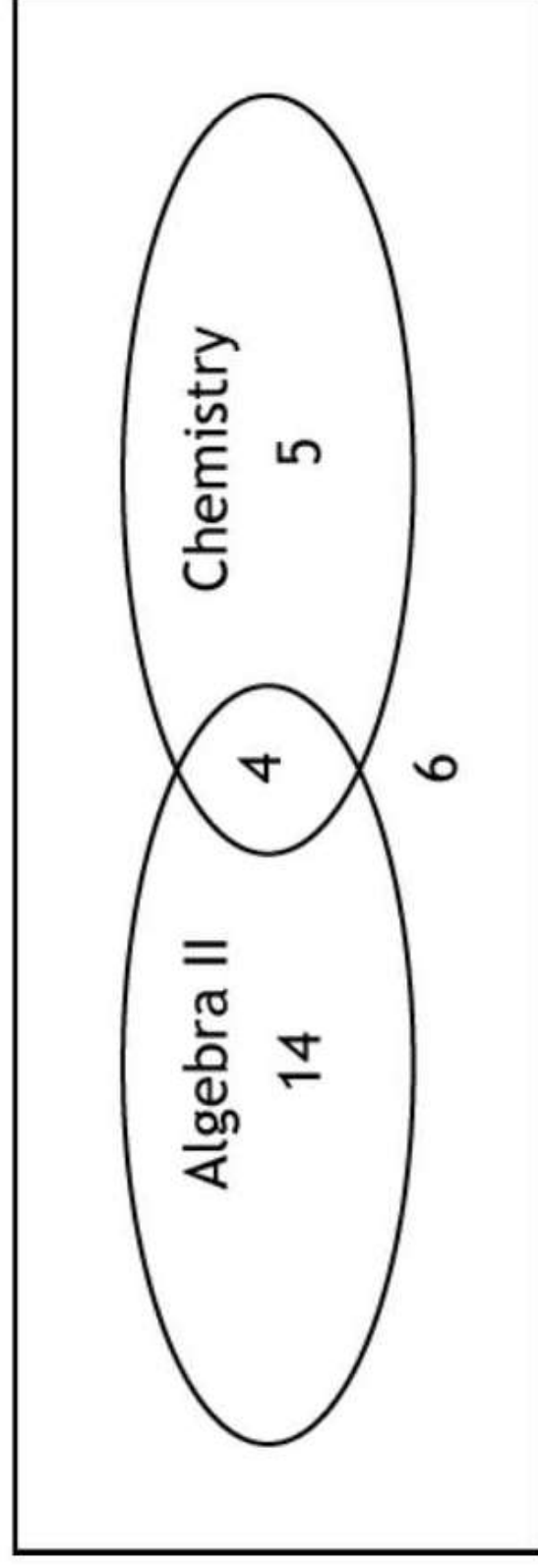


**A BOOK ON
PROBABILITY?
IT MIGHT BE ON THAT
SHELF OVER THERE.**

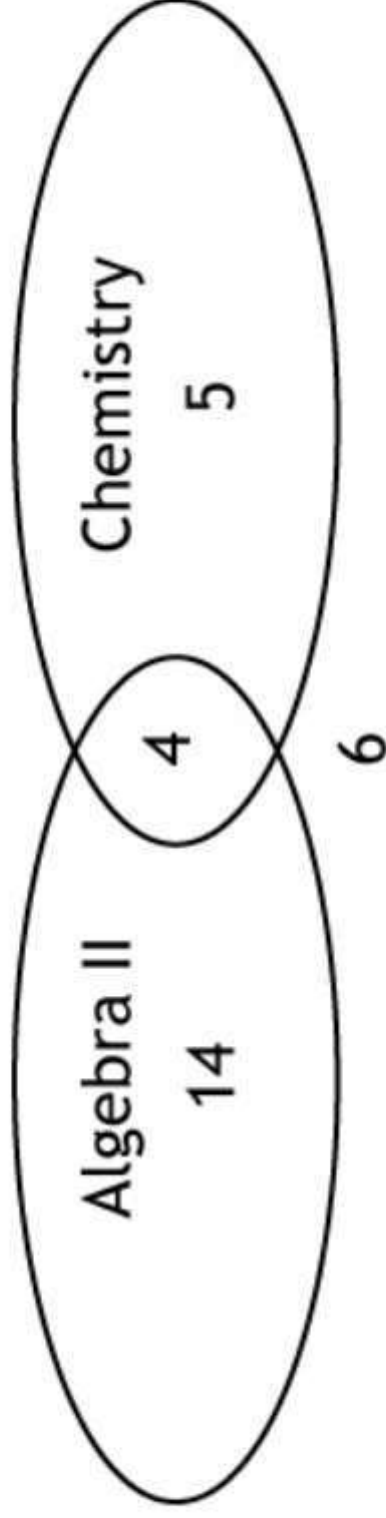


Ms. Snow conducted a survey of her homeroom. She asked students what math and what science course they were taking this semester. Below are the results.

Students in Ms. Snow's Homeroom



1. Analyze the data in the Venn diagram and list five facts about Ms. Snow's

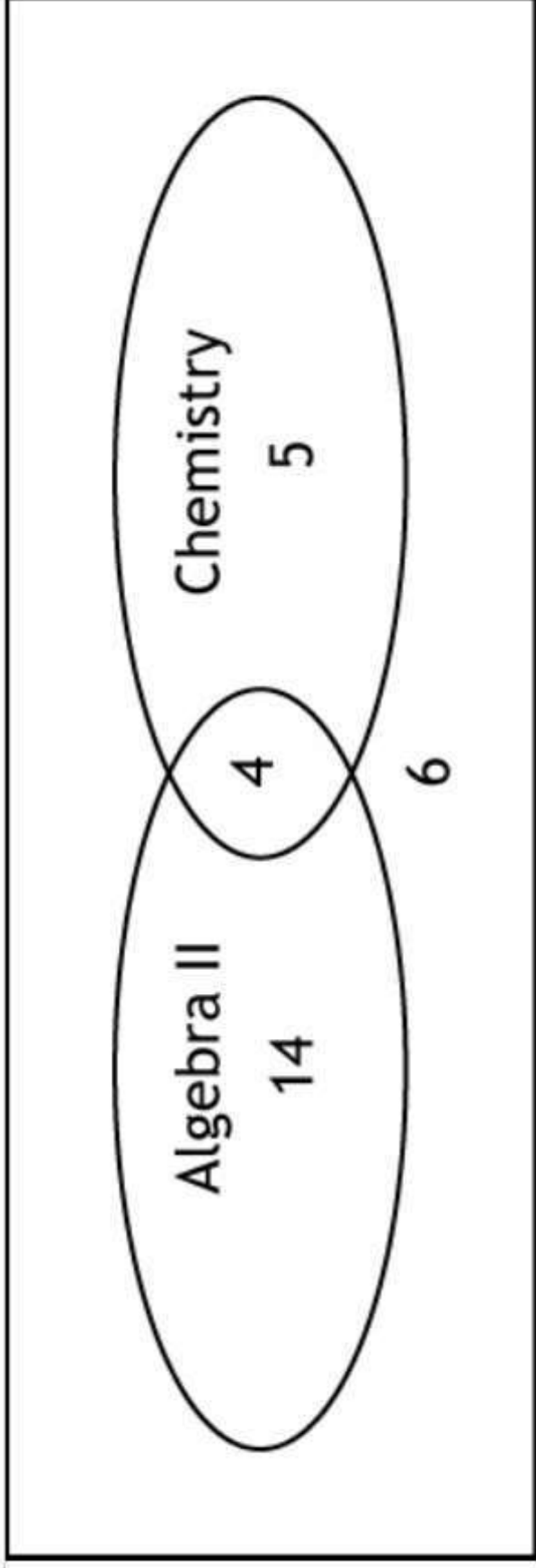


2. If a student is selected at random from Ms. Snow's homeroom, what is the probability that the student is taking Algebra II and Chemistry? Explain your reasoning.

$$\frac{4}{29}$$

3. If a student is selected at random from Ms. Snow's homeroom, what is the probability that the student is not taking Algebra II or Chemistry? Explain your reasoning.

$$\frac{6}{29}$$



4. Find the probability $P(\text{Algebra II or Chemistry})$. Explain your reason

$$\frac{19}{29}$$

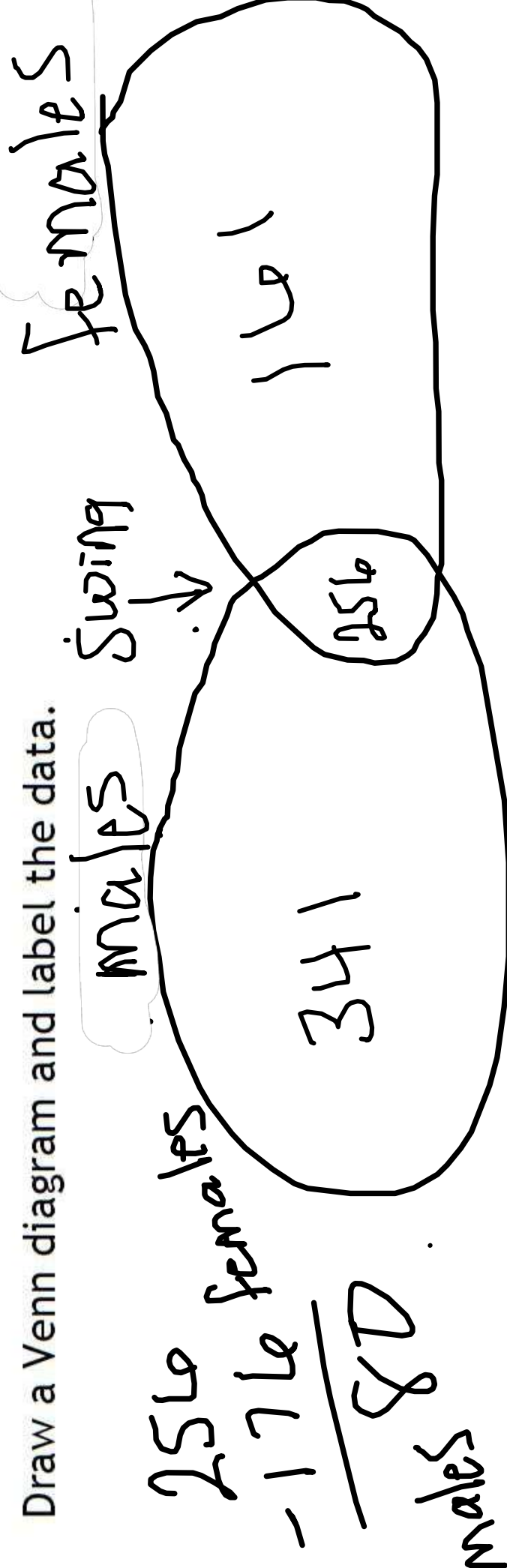
5. Find the probability of a student taking Chemistry, given that the student is taking Algebra II, or $P(\text{Chemistry/not taking Algebra II})$.

$$\frac{5}{29}$$

Students survey 758 spectators at a national championship tennis match. The indicate the following:

- 421 are male,
- 256 have a two-handed backhand swing, and
- 176 of the people with a two-handed backhand swing are female.

Draw a Venn diagram and label the data.



$$\begin{array}{r} 256 \\ -176 \\ \hline 80 \end{array}$$

males

$$\begin{array}{r} 421 \\ -256 \\ \hline 165 \end{array}$$

6. What is the probability that a person selected at random from the survey group is female? Explain your reasoning.

$$\frac{421}{758}$$

7. What is the probability that a person selected at random from the survey group is male? Explain your reasoning.

$$\frac{337}{758}$$

8. What is the probability that a person selected randomly from the survey group is left-handed backhand swing? Explain your reasoning.

$$\frac{256}{758}$$

9. What is the probability that a person selected randomly from the survey group is right-handed backhand swing? Explain your reasoning.

$$\frac{254}{758}$$

$$\frac{59}{758}$$

10. What is the probability that a person selected randomly from the survey group have a two-handed backhand swing, given that the person is male, or P(no two-handed backhand/male)?

$$\frac{341}{758}$$