Name: $\qquad$ Date: $\qquad$

## Using Venn Diagrams


$A^{\prime}$


B

$A \cup B$


If the Venn Diagram below shows the number of people in a fine arts club who are in band (B) and choir (C), make the following determinates:
$\qquad$ 1. How many people are in the club?
$\qquad$ 2. Find $P(B)$
$\qquad$ 3. Find $P(B \cap C)$
$\qquad$ 4. Find $P(B \cup C)$

$\qquad$ 5. Find $P(B)^{\prime}$

A guidance counselor is planning schedules for 30 students. 16 want to take Spanish and 11 want to take Latin. 5 Say they want to take both. Display this information on the Venn Diagram below.
6.

$\qquad$ 7. Find $P(S \cap L)$
$\qquad$ 8. Find $P(L)$
$\qquad$ 9. What is the probability that a student studies at least one subject? $\mathrm{P}(\mathrm{S} \cup \mathrm{L})$
$\qquad$ 10. What is the probability that a student studies exactly one subject?
$\qquad$ 11. What is the probability that a student studies neither subject? $P(S \cup L)$ '
$\qquad$ 12. What is the probability that a student studied Spanish if it is known that the student studies Latin?

