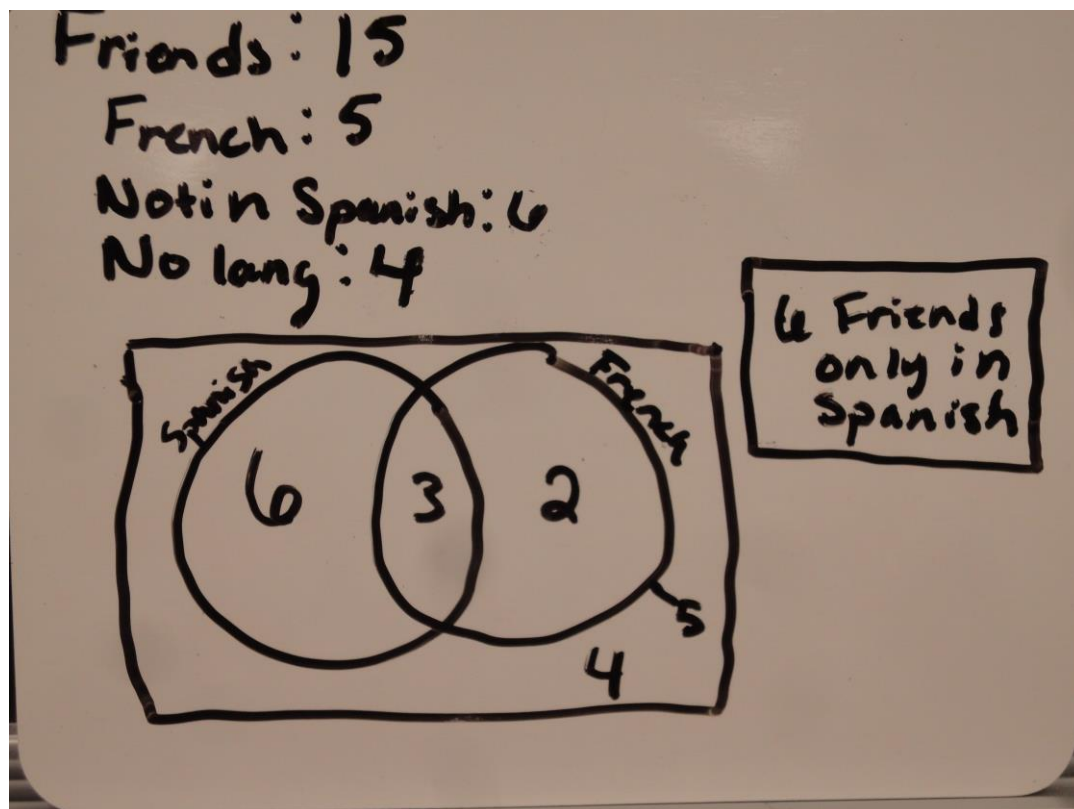


MATH 126
Problem Solving (Venn Diagrams)

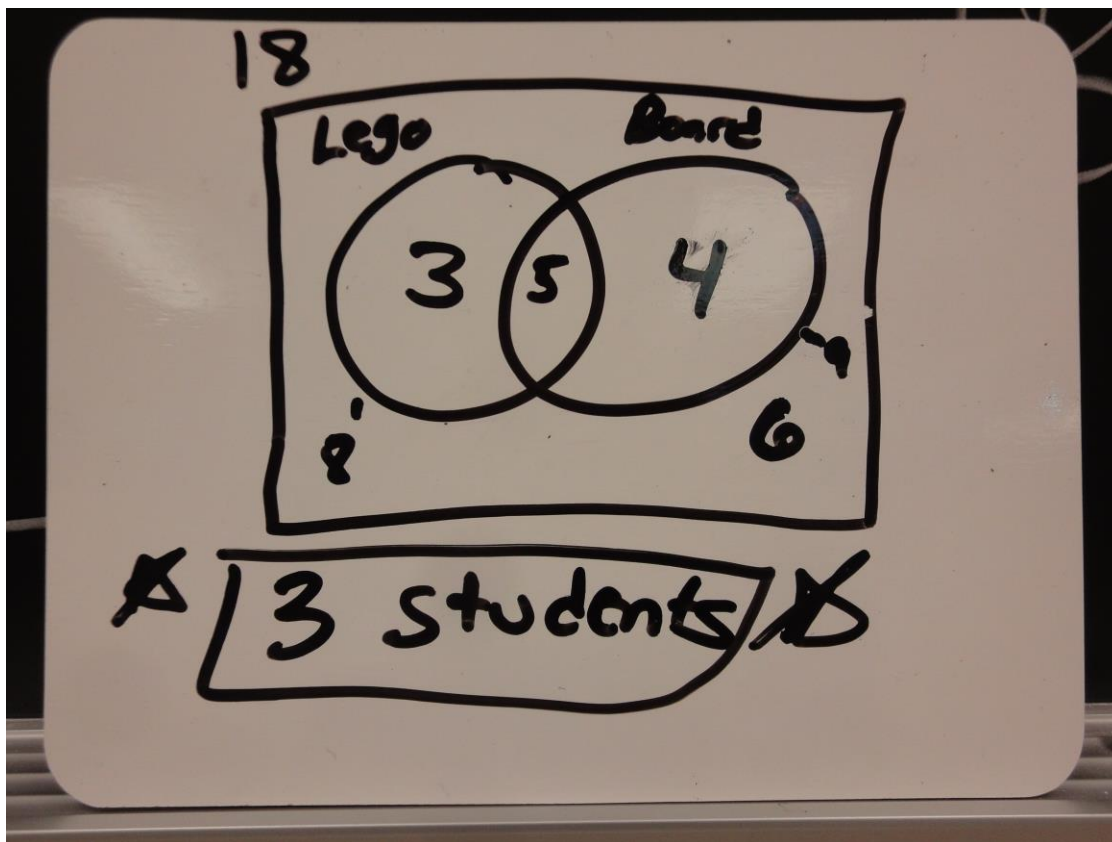
Problem

15 of Sarah's friends go to North High School. There are two foreign languages at North High—Spanish and French. Four of Sarah's friends are not taking any foreign language class. Only 6 of her friends are not taking Spanish. Five of her friends are taking French. How many of Sarah's friends are taking Spanish but not French?



Problem

There are 18 students in Ms. Nelson's class. After school on Thursday, there is a Lego club. After school on Tuesday, there is a Board Game club. Six of the students don't go to either club. Eight students go to Lego club. Nine students go to the Board Game club. How many students go to Lego club but not board game club?



Sam has 18 hardback books.

All of Sam's fantasy books are fiction.

Sam has 12 fantasy books.

1/3 of Sam's fantasy books are hardback books.

Sam has 6 paperback books that are non-fiction.

Sam has 24 fiction books.

5 of Sam's books are hardback books that are fiction but not fantasy-fiction.

How many books does Sam have?

