

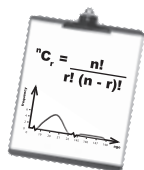


## Exercise

50 sports enthusiasts at the Head First Health Club are asked whether they play baseball, football, or basketball. 10 only play baseball. 12 only play football. 18 only play basketball. 6 play baseball and basketball but not football. 4 play football and basketball but not baseball.

Draw a Venn diagram for this probability space. How many enthusiasts play baseball in total? How many play basketball? How many play football?

Are any sports' rosters mutually exclusive? Which sports are exhaustive (fill up the possibility space)?



## Vital Statistics

### A or B

To find the probability of getting event A or B, use

$$P(A \cup B) = P(A) + P(B) - P(A \cap B)$$

$\cup$  means OR

$\cap$  means AND