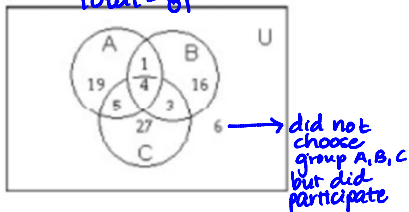


Notes

\bar{A} = comp of A... (not in A)

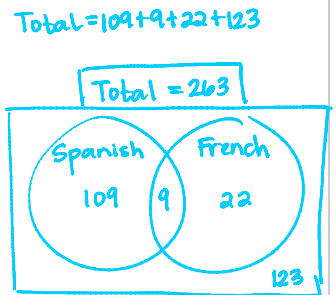
U = Union
"everything"
∩ = Intersection
"Overlap only"

1. Use the information given in the figure.

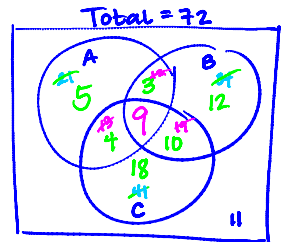


How many are in set A? $19+5+4+1=29$
 How many are in set $A \cup B$? $19+5+3+16+1+4=48$
 How many are in set $A \cap B$? $1+4=5$
 How many are in set $B \cap \bar{A}$? $3+16=19$
 How many are in set $C \cap \bar{A}$? $27+5+19+6=57$
 How many are in set \bar{C} ? $19+1+16+6=42$
 How many are in set $A \cap B \cap C$? 1

4. In a student survey, 118 students indicated that they speak Spanish, 31 students indicated that they speak French, 9 students indicated that they speak both Spanish and French, and 123 students indicated that they speak neither. How many students participated in the survey?

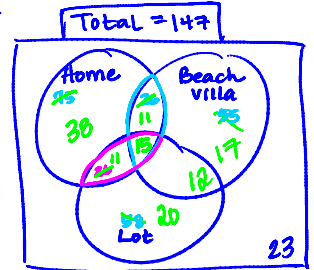


5. Among a group of 72 investors, 21 owned shares of Stock A, 34 owned shares of Stock B, 41 owned shares of Stock C, 12 owned shares of both Stock A and Stock B, 13 owned shares of Stock A and Stock C, 19 owned shares of Stock B and Stock C, and 9 owned shares of all three. How many investors did not have shares in any of the three? How many owned shares of either Stock A or Stock C but not Stock B?



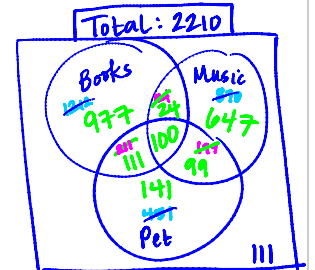
not in A, B, C = 11
 A or C but not B = 5 + 4 + 18 = 27

6. In a survey of 147 vacationers in a popular beach resort town, 75 indicated they would consider buying a home there, 55 would consider buying a beach villa, 58 would consider buying a lot, 26 would consider both a home and a villa, 26 would consider both a home and a lot, 27 would consider both a villa and a lot, and 15 would consider all three. How many vacationers would not consider any of the three? How many would consider only a home?

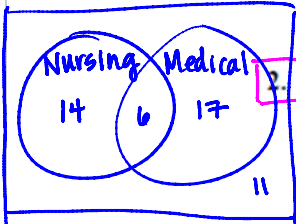


no home, beach, lot = 23
 only a home = 38

7. A survey of 2210 credit card users indicated that 1212 had bought books online, 870 had bought music online, 451 had bought pet supplies online, 124 had bought both books and music, 211 had bought both books and pet supplies, 199 had bought both music and pet supplies, and 100 had bought all three. How many credit card users did not buy any of the three? How many bought either books or pet supplies but not music?



no books, music, pet supplies = 111
 books or pet but no music = 977 + 111 + 141 = 1229

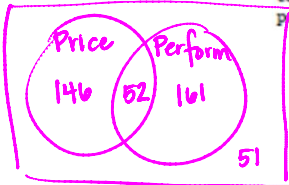


2. In a survey of 48 hospital patients, 20 said they were satisfied with the nursing care, 23 said they were satisfied with the medical treatment, and 6 said they were satisfied with both. How many patients were satisfied with neither? How many were satisfied with only the medical treatment?

neither = 11
 medical only = 17

neither:
 $= 48 - (14 + 17)$
 $= 48 - 31$
 $= 17$

3. In a survey of 410 computer buyers, 198 put price as a main consideration, 213 put performance as a main consideration, and 52 listed both price and performance. How many computer buyers listed other considerations? How many looked only for performance?



other considerations = 51
 performance only = 161