

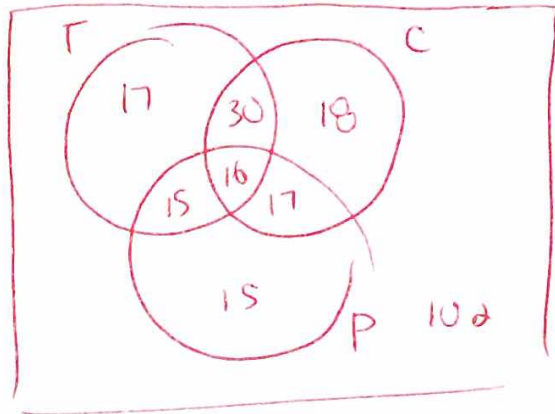
Extra Practice 3.4

1. A survey of 230 exotic pet owners shows that:

- 78 people own tarantulas
- 81 people own chinchillas
- 63 people own pot-belly pigs
- 46 people own chinchillas and tarantulas
- 62 people own exactly two of these pets
- 31 people own tarantulas and pot-belly pigs
- 16 people own tarantulas, chinchillas and pot belly pigs

Determine:

- a) $n(T \cup C \cup P)' = 102$
 b) $n(P) = 63$
 c) $C \setminus P \setminus T = 18$

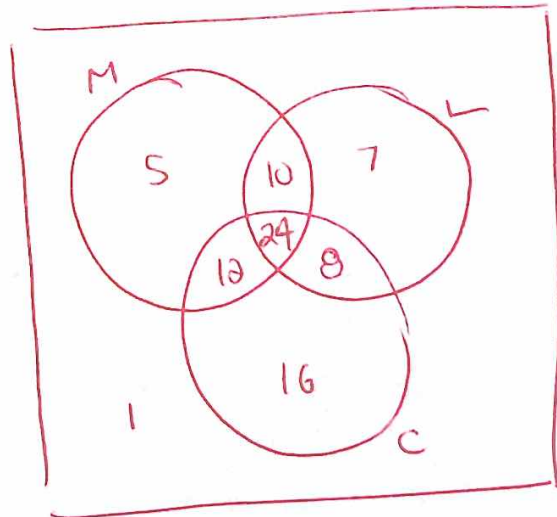


2. A survey of faculty and graduate students at the University of Florida's film school revealed the following information:

- 51 admire Moe
- 49 admire Larry
- 60 admire Curly
- 34 admire Moe and Larry
- 32 admire Larry and Curly
- 36 admire Moe and Curly
- 24 admire all three of the Stooges
- 1 admires none of the Stooges

Determine:

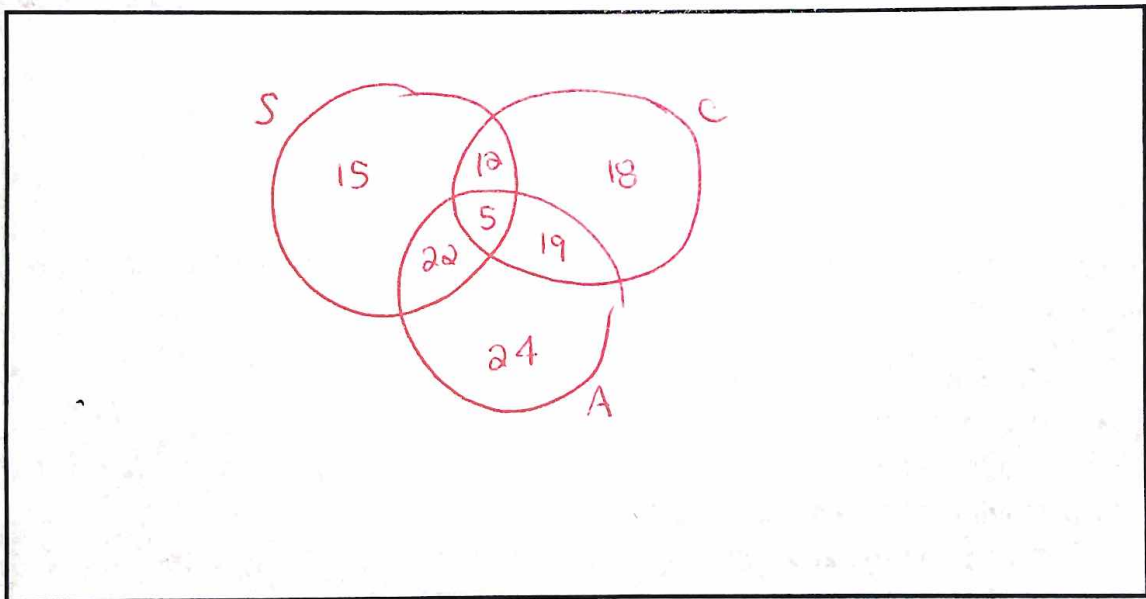
- a) How many people were surveyed? = 83
 b) $C \setminus M \setminus L = 16$
 c) $n(L \cup C) = 77$
 d) How many admire exactly one of the Stooges? = 28
 e) How many admire exactly two of the Stooges? = 30



3. 115 students were asked which of the following 3 shows they watched regularly. CSI, Survivor and Amazing Race.

- 54 watched CSI
- 54 watched Survivor
- 70 watched Amazing Race
- 12 watched only CSI and Survivor
- 19 watched only CSI and Amazing Race
- 22 watched only Survivor and Amazing Race
- Every student watched at least one program

Complete a Venn diagram and determine how many students watched all three programs.



$$115 = 54 + 54 + 70 - (22 + x) - (19 + x) - (12 + x) + x$$

$$115 = 125 - 2x$$

$$-10 = -2x$$

$$\boxed{x = 5}$$