

Thursday, October 18, 2018 12:44 PM

$U = \{a, \dots, z\} \quad n(U) = 26$

$M = \{m, a, t, h\} \quad n(M) = 4$

$D = \{d, a, n, c, e\} \quad n(D) = 5$

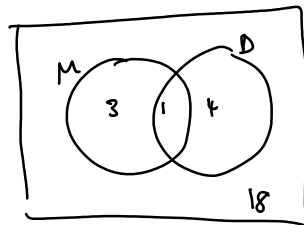
$n(M \cap D) = 1$

$n(M \cup D) = 8 \neq 5 + 4$

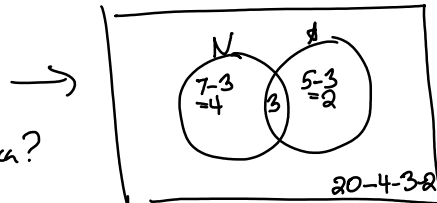
$M \cup D = \{m, a, t, h, d, n, c, e\}$

don't overcount elements in  $M \cup D$ !

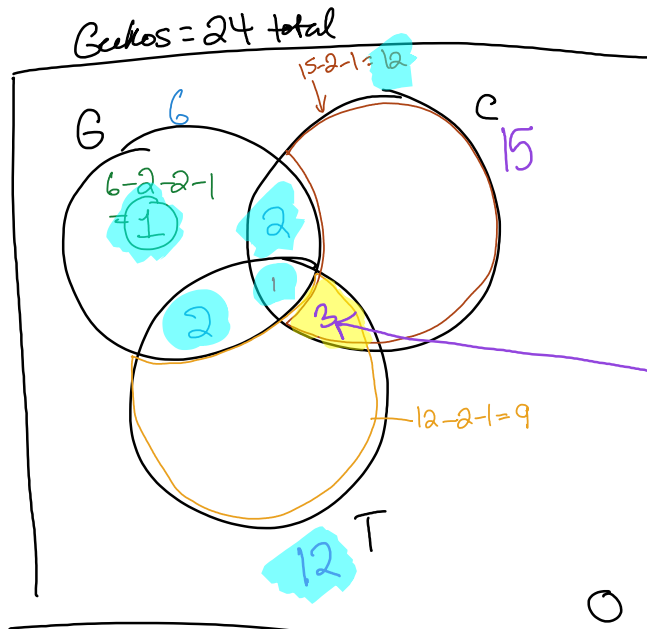
$n((M \cup D)^c) = 26 - 8 = 18$



- 20 Students in class
  - 7 North America
  - 5 Africa
  - 3 both
- how many in NA but not Africa?  
4



- 6 G
  - 12 T
  - 15 C
- 1 G, C, T ✓
  - 2 G, T, not C ✓
  - 2 G, C, not T ✓
- Total 24
- How many



$1 + 2 + 2 + 1 + 12 + 12 =$

But there are only 24.  
So 3 got double counted  
Now you can figure what goes in the other blanks

