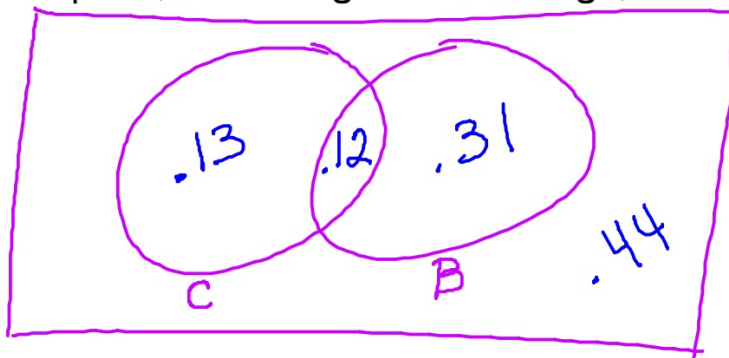


Venn Diagrams

At a grocery store, customers were surveyed:
 25% use coupons, 43% bring their own bags, and 12% do both.

$$\begin{array}{r} \downarrow \\ 25 \\ -12 \\ \hline 13 \end{array}$$



Coupons or Bags
56%.

What percent of customers

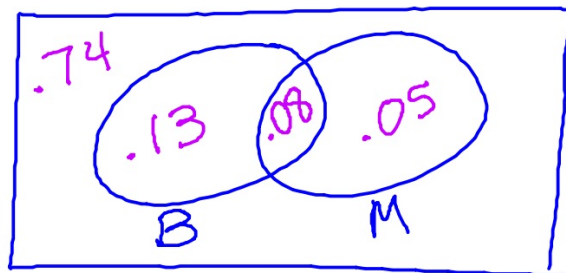
use coupons only? 13%

use coupons or bring their bags but not both? $13 + 31 = 44\%$

do not use coupons or bring bags? 44%

21% of Lewis High School students are in the band. 13% are in the math club. 8% are in the band and the math club.

$$\frac{21}{13}$$



.13: Band only
 .05: Math club only
 .08: Both

What is the probability of randomly selecting a student that is in the

math club only .05

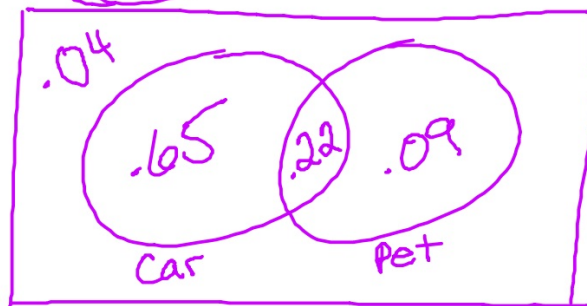
math club ~~or~~ band .26

math club or band, but not both .18

neither the band or the math club .74

Suppose 87% of college students own a car, 31% have a pet, and 22% have a car and a pet.

Car only:
 $87 - 22$
Pet only
 $31 - 22$



What is the probability of randomly selecting a college student that has

a car but not a pet? $.65$

neither a car or a pet? $.04$

a car or a pet? $.65 + .22 + .09 = .96$