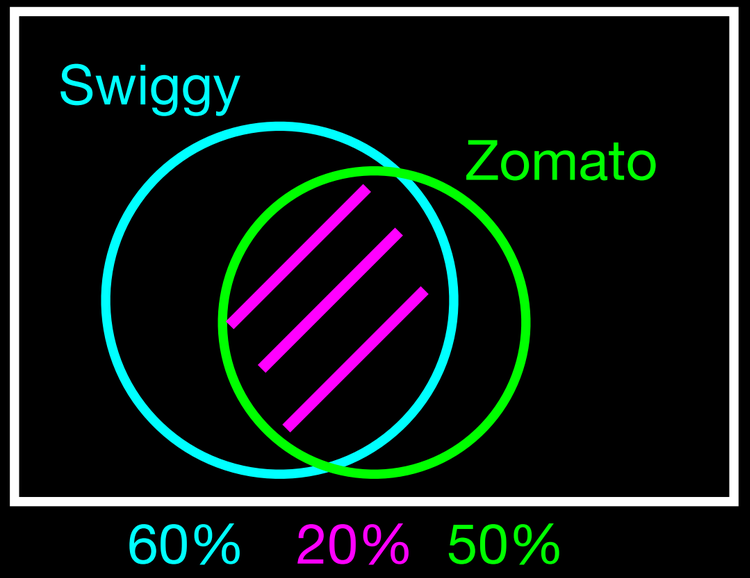
Quiz Time

It is known that 60% people use Swiggy, 50% use Zomato. 20% people use both.

Among those who use Swiggy, what fraction also use Zomato?

A. 0.2
B. 0.5
C. 20/50
D. 20/60

Right answer: D



Which of these probabilities represent the following statement: Among those who use Swiggy, what fraction also use Zomato?

A. P[Swiggy | Zomato]
B. P[Swiggy ∪ Zomato]
C. P[Zomato | Swiggy]
D. P[Swiggy ∩ Zomato]

Right answer: C

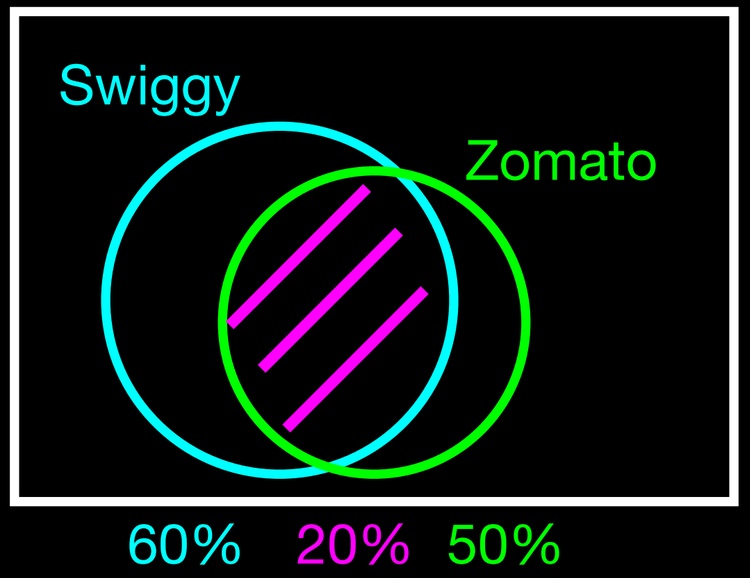
Quiz Time

It is known that 60% people use Swiggy, 50% use Zomato. 20% people use both.

Among those who use Swiggy, what fraction also use Zomato?

A. 0.2
B. 0.5
C. 20/50
D. 20/60

Right answer: D



"Given that a person uses Swiggy what is the probability he will also use Zomato?"

$$P[Z|S] = \frac{0.2}{0.6} = \frac{P[Z \cap S]}{P[S]}$$

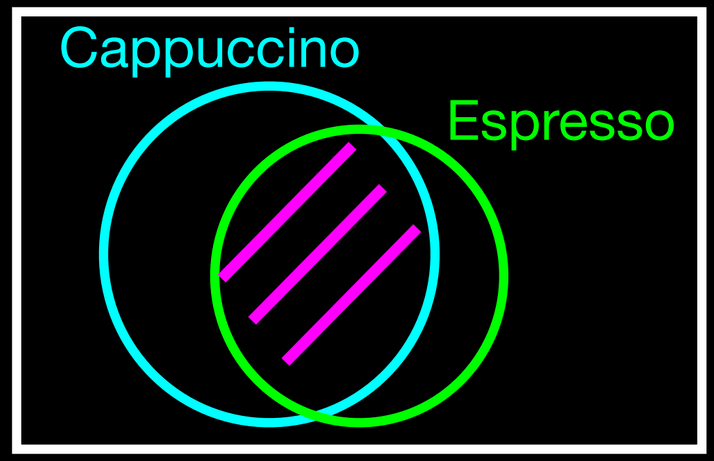
Quiz Time

It is known that 80% people like cappuccino, 40% people like espresso, and 30% like both.

Among the people who like cappuccino, what fraction of people like espresso?

A. 0.3
B. 30/80
C. 30/40
D. 0.8

Right answer: B



Which of these probabilities represent the following statement: Among the people who like cappuccino, what fraction of people like espresso?

A. P[Espresso | Cappuccino]
B. P[Espresso ∪ Cappuccino]
C. P[Cappuccino | Cappuccino]
D. P[Espresso ∩ Cappuccino]

Right answer: A

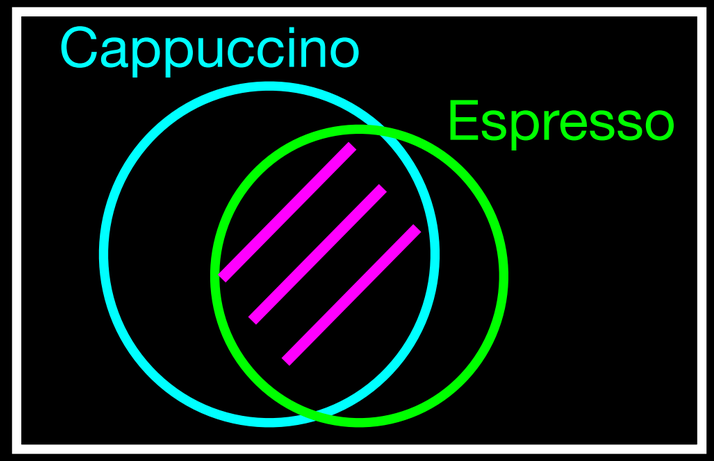
Quiz Time

It is known that 80% people like cappuccino, 40% people like espresso, and 30% like both.

Among the people who like cappuccino, what fraction of people like espresso?

A. 0.3
B. 30/80
C. 30/40
D. 0.8

Right answer: B

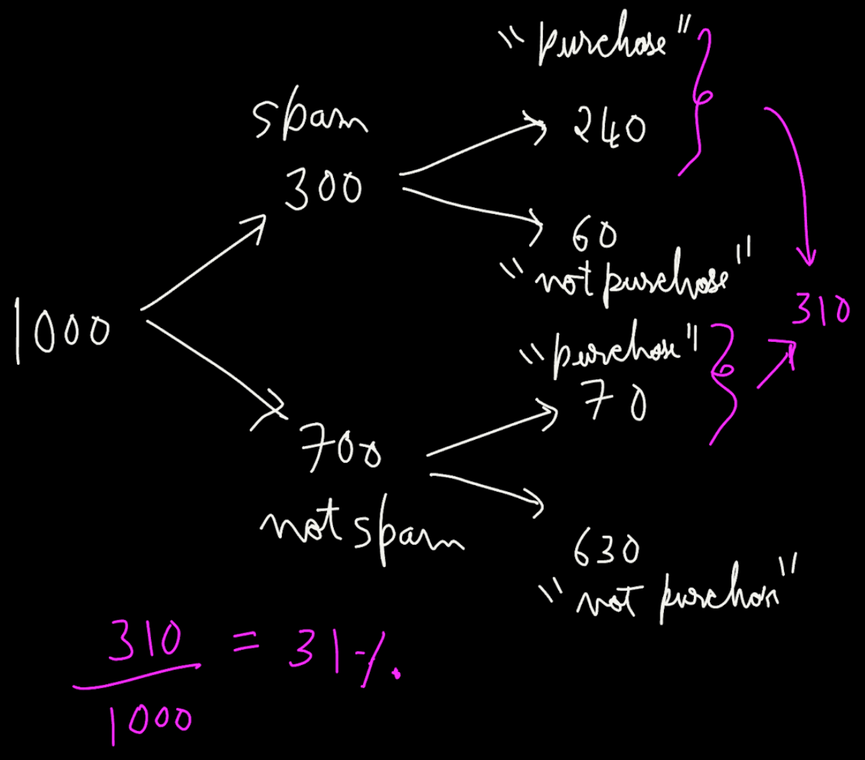


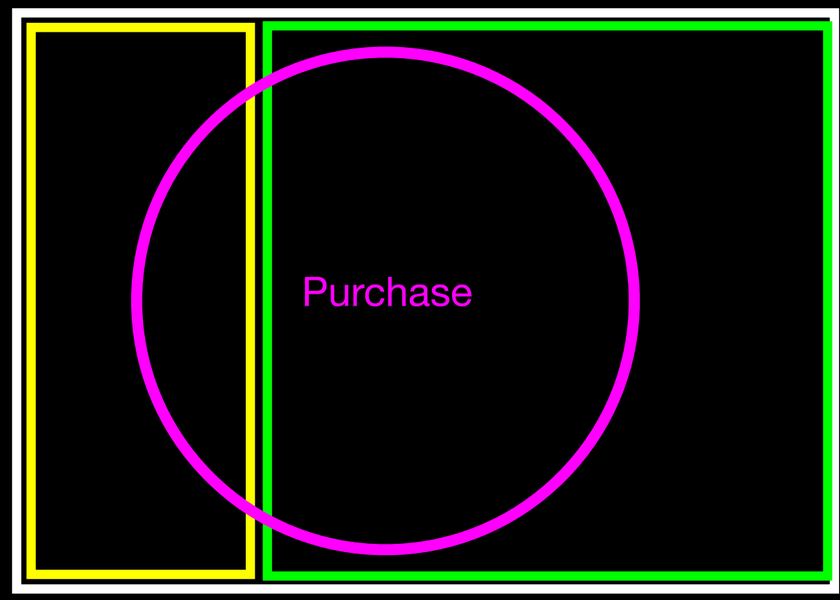
"Given that a person likes Cappuccino,
what is the probability he will like Espresso?"

$$P[E \mid C] = \frac{0.3}{0.8} = \frac{P[E \cap C]}{P[C]}$$

Quiz Time

It is known that 30% of emails are spam, and 70% are not spam
The word “purchase” occurs in 80% of spam emails. It also occurs in 10% of non-spam emails
Overall, in what percentage of emails would we see the word “purchase”?





0.8*0.3 + 0.1*0.7 = 0.31

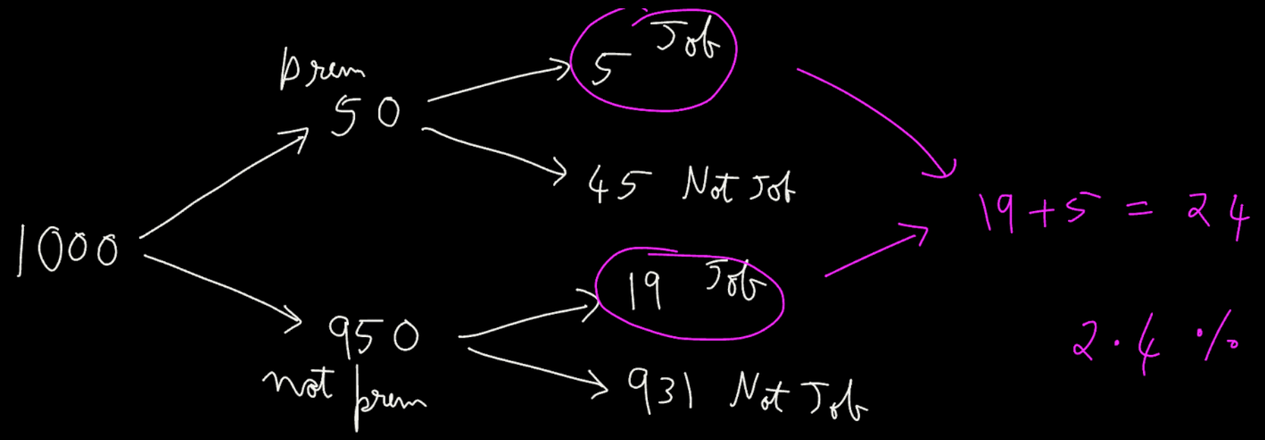
Quiz Time

It is known that 5% of all LinkedIn users are premium users

10% of premium users are actively seeking new job opportunities.

Only 2% of non-premium users are actively seeking new job opportunities

Overall, what percentage of people are actively seeking new job opportunities

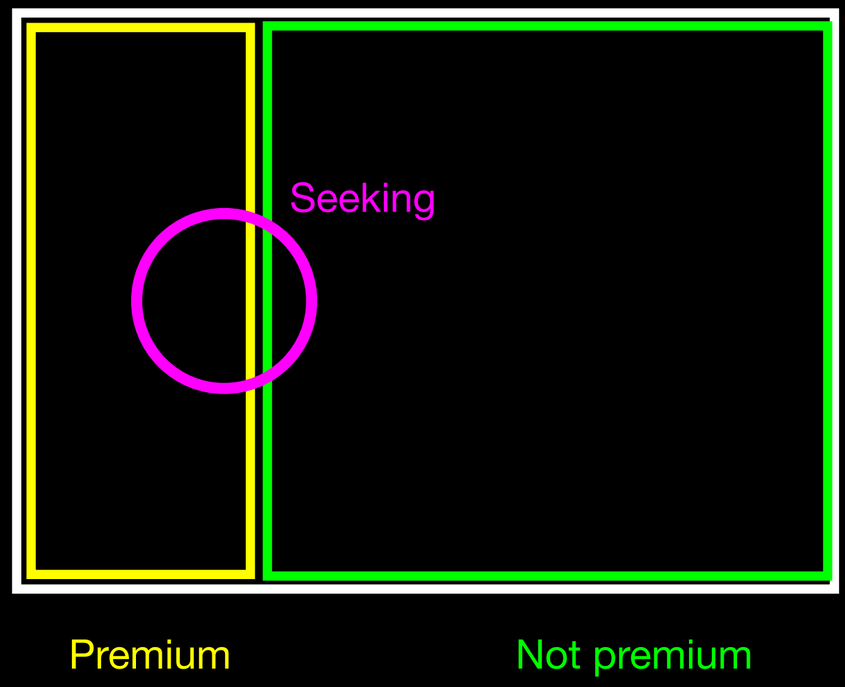


$P[\text{Prem}] = 0.05$

$P[\text{not Prem.}] = 0.95$

$P[J \mid \text{Prem}] = 0.1$

$P[J \mid \text{not Prem}] = 0.02$



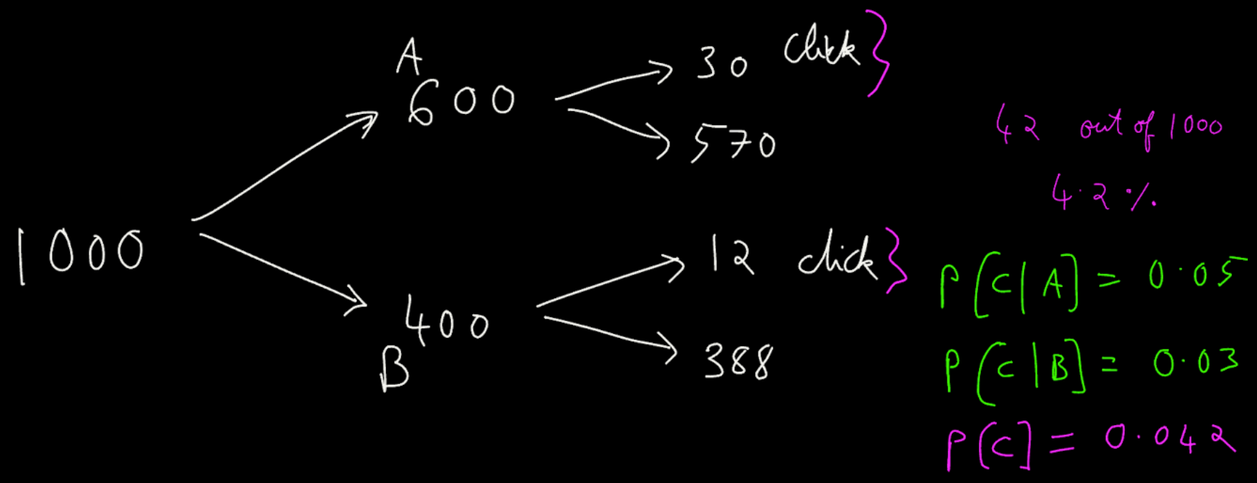
Quiz Time

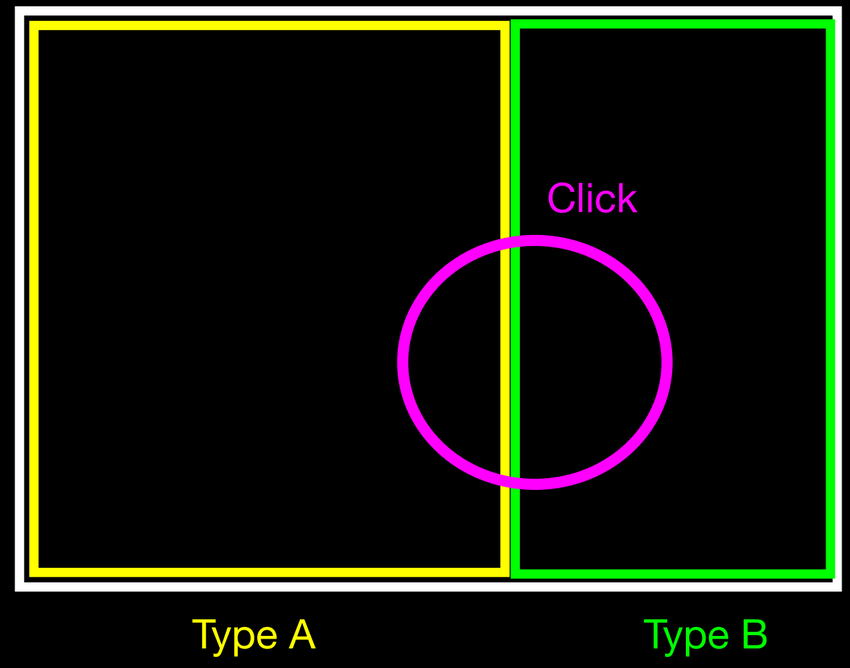
An e-commerce website shows two types of ads: Type A and Type B.

60% of the visitors see Type A ads, and 40% visitors see Type B ads

The click-through rate for Type A ads is 5%, while the click-through rate for Type B ads is 3%

What is the overall click through rate?





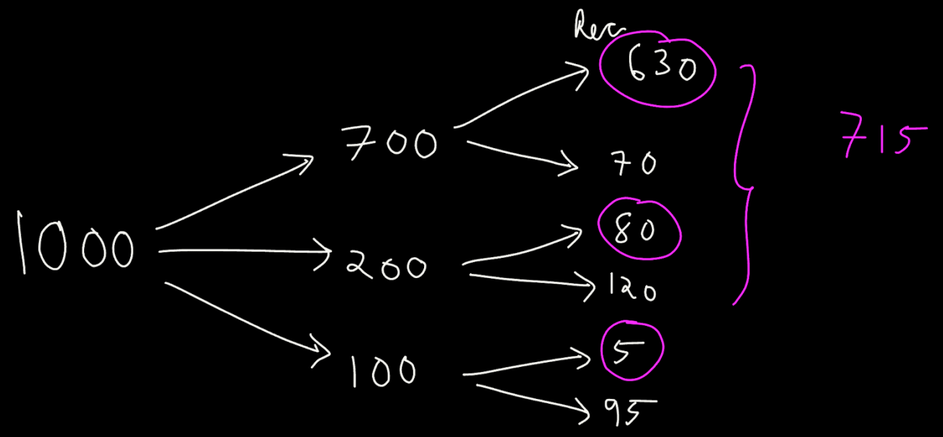
5 * 0.60 + 3 * 0.40 = 4.2 %

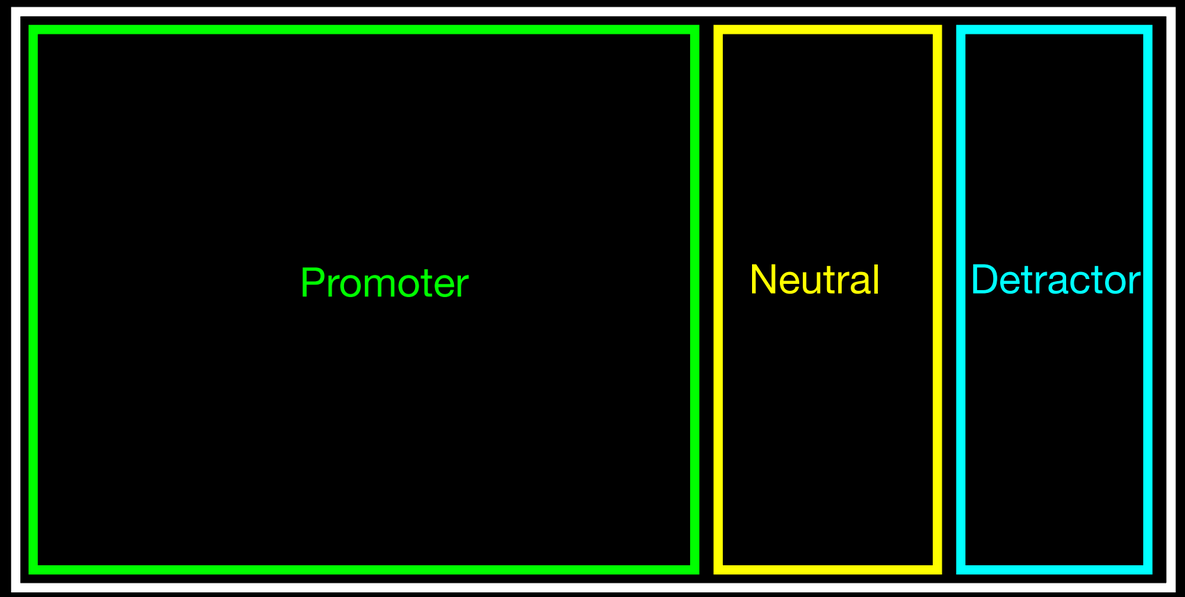
Quiz Time

In an NPS survey, it is seen that 70% are promoters, 20% are neutral, 10% are detractors

90% of promoters recommend the product to a friend
40% of neutral/passive recommend the product to a friend
5% of detractors recommend the product to a friend

Overall, what percentage of people recommend the product to a friend?





90 * 0.7 + 40 * 0.2 + 5 * 0.1 = 71.5