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Suppose a company offers three different delivery methods for their products: standard delivery, express delivery, and same-day delivery 60% of customers choose standard delivery, 30% choose express delivery, and 10% choose same-day delivery The delivery success rates are 95% for standard delivery, 90% for express delivery, and 85% for same-day delivery If a customer's delivery fails, what is the probability that they chose express delivery?

Standar 60% Use, 95% Success	|	P(S | F) 0.6 * 0.05 = 0,03
Express 30% Use, 90% Success	|	P(E | F) 0.3 * 0.1 = 0.03
Same-day 10% Use, 85% Success	|	P(SD | F) 0.1 * 0.15 = 0,015

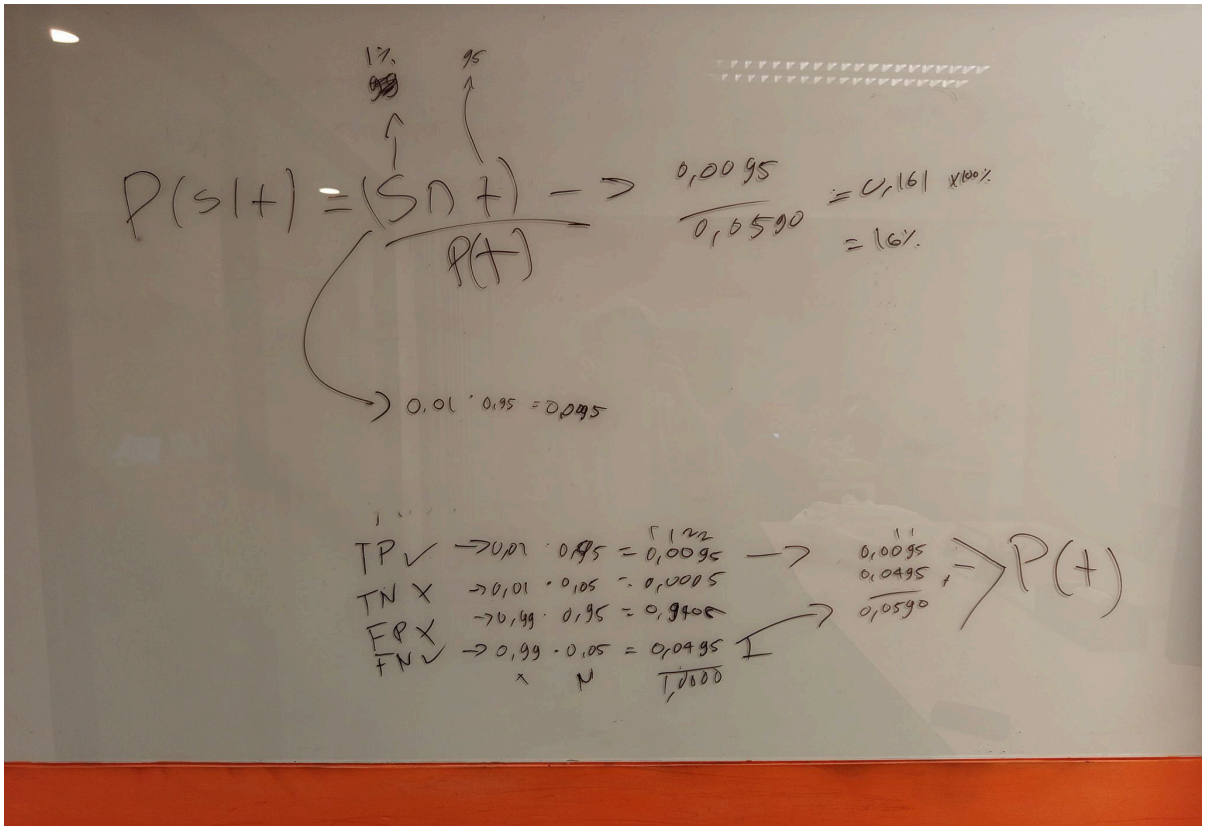
P(E | F) = (E n F) / P(F)

POPULASI (CONTOH) 1,000
P(S | F) 600 * 0.05 = 30
P(E | F) 300 * 0.1 = 30
P(SD | F) 100 * 0.15 = 15
——————————— +
P(F) = 75

P(E | F) / P (F) = 30/75 = 0.4 == 40%

If a medical test is 95% accurate in detecting a disease and 1% of the population has the disease. Calculate the probability of having the disease given a positive test result!

P(S | +) = 0,161 == 16.1%


1%
95
P(s|+) = (S ∩ +) / P(+) -> 0,0095 / 0,0590 = 0,161 x100%
= 16%
0,01 · 0,95 = 0,0095
TP ✓ -> 0,01 · 0,95 = 0,0095
TN X -> 0,01 · 0,05 = 0,0005
FP X -> 0,99 · 0,95 = 0,9405
FN ✓ -> 0,99 · 0,05 = 0,0495
1000
0,0095
0,0495
0,0590
P(+)