Traffic Light Q1

`P(Y|S) = 0.12`

P(Y | S) represents the probability of the event Y (the light is yellow) `given` that the event S (a car is stopped at the intersection) has occurred.

Traffic Light Q2

Condition ----> if the traffic light is yellow

P(S|Y) = P(Y|S) * P(S) / P(Y)

`P(S|Y) = 0.48`

Traffic Light Q3

`Prior probability`

note:
P(A|B) = P(B|A) * P(A) / P(B)

Where:

- P(A|B) is the probability of event A occurring given evidence B
- P(B|A) is the probability of evidence B given that event A has occurred
- P(A) is the `prior probability` of event A occurring
- P(B) is the `prior probability` of evidence B occurring

Bayes Q2

P(F|L) = 0.9 , P(L) = 0.2 , P(F) = 0.4
P(L|F) = P(F|L) * P(L) / P(F)

`P(L|F) = 0.45`

Bayes Q3

P(C) = 0.01 , P(Pos , C) = 0.9 , P(Pos , not C) = 0.05
P(C | Pos) ?????
Normalise = 0.009 + 0.495 = 0.0585
P(C | Pos) = 0.009 / 0.0585 = 0.1538

`P(C | Pos) = 0.1538`
