A: {A is guilty}

B: {B is Guilty}

MA = {A's Blood matches the guilty party}

MB = {B's Blood matches the guilty party}

(a) we want to calculate P(A/MA)

P(A/MA) = P(MA|A)P(A)/P(MA|A)P(A)+P(MA|B)P(B)

(1.1/2)/(1.1/2)+(1/10* 1/2) = 10/11

(b) we want to calculate P(MB/MA).

P(MB|MA) = P(MB|MA.A)P(A|MA)+P(MB/MB.A)P(B|MA)

= 1/10*10/11 + 1.1/11 = 2/11