Problem 1) $P(virus) = 0.1$ $P(A|virus) = 0.95$ $P(B|virus) = 0.9$

$P(A|\neg virus) = 0.10$ $P(B|\neg virus) = 0.05$

$P(virus|A) = \dfrac{P(virus, A)}{P(A)} = \dfrac{0.095}{1.084} = 0.0876$

$P(virus|B) = \dfrac{P(virus, B)}{P(B)} = \dfrac{0.09}{0.5852} = \boxed{0.1538}$

$P(B|virus) = \dfrac{P(B, virus)}{P(virus)} \Rightarrow P(B, virus) = P(virus, B) = 0.09$

$P(A|virus) = \dfrac{P(A, virus)}{P(virus)} \Rightarrow P(A, virus) = P(virus, A) = 0.095$

<u>B is more indicative of someone</u>

<u>really carrying the virus</u>