Q3. A medical test for malaria is subject to some error. Given a person who has malaria, the probability that the test will fail to reveal the malaria is 0.06. Given a person who does not have malaria, the test will correctly identify that the person does not have malaria with probability 0.91. In a particular area, 20% of the population suffers from malaria.

(a) If someone has malaria, what is the probability that the test will identify that person as having malaria?
(b) Copy the following joint probability table to your answer papers and fill it in.

	Has malaria	Does not have malaria	Total
Test indicates malaria			
Test indicates no malaria			
Total			

Suppose that Richard Rice, a resident of the area, decides to take the test for malaria. If his test results indicate that he has malaria, what is the probability that he actually has malaria