

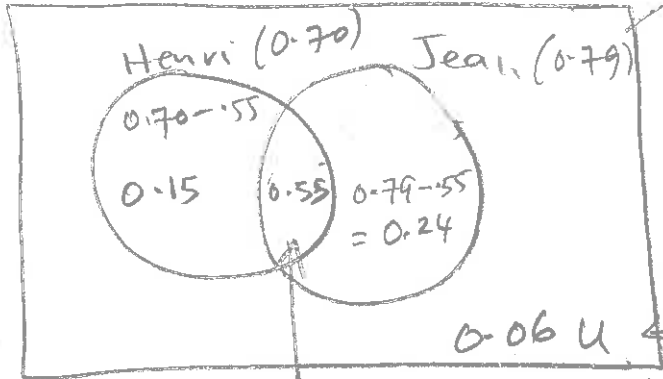
**Example 9: An exception: TWO selections where order does not matter.**

*catch = 0.70*

Henri and Jean go ice fishing in separate huts. The probability of Henri not catching a fish is 0.30. The probability of Jean not catching a fish is 0.21. *0.79*

- a) Use a Venn diagram to determine the probability that at least one of the fishermen will catch a fish.
- b) Use a tree diagram to determine the probability that at least one of the fishermen will catch a fish.

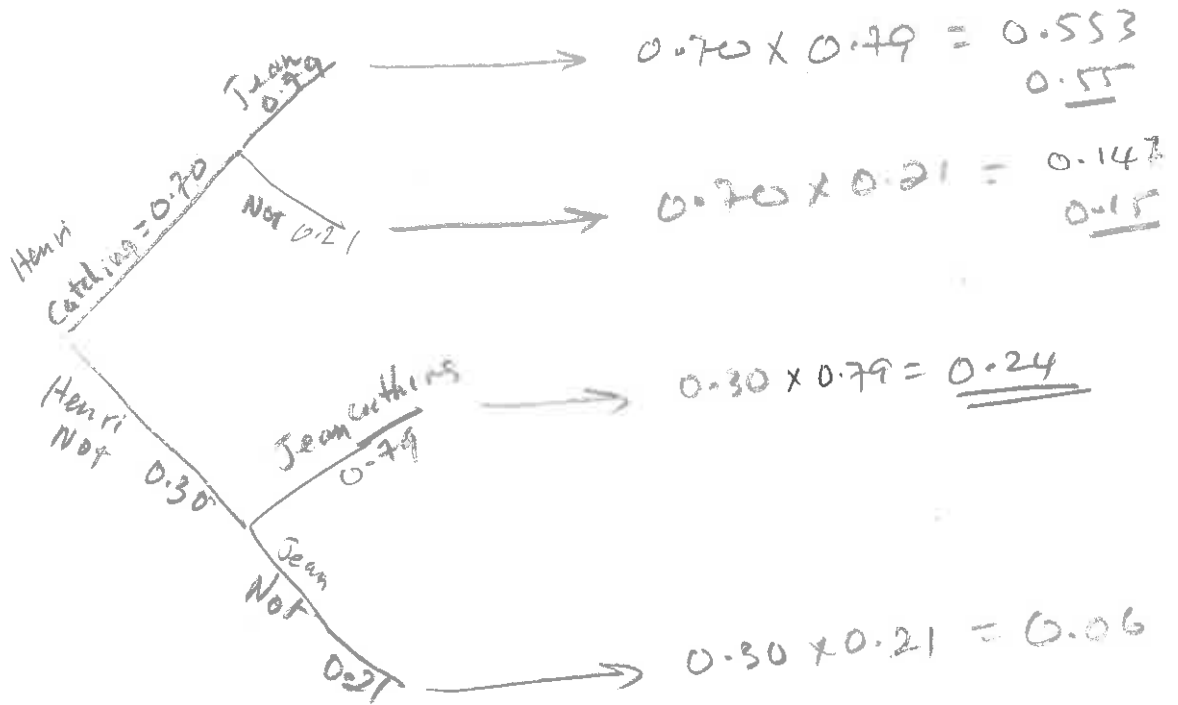
a) *catching a fish = 0.15 + 0.55 + 0.24 = 0.94*



$100 - 0.15 - 0.55 - 0.24 = 0.06$

and  $\Rightarrow$  multiply  
 $0.79 \times 0.70 = 0.553$

b)



$P(A \cup B) = P(A) + P(B) - P(A \cap B)$   
 $= 0.70 + 0.79 - (0.70 \times 0.79)$   
 $= 0.94$

Probability of one catch = 94%