

(i) Alice, Bob, Charlie and Dianne each make the following statements:

Alice: I am telling the truth.
Bob: Alice is telling the truth.
Charlie: Bob is telling the truth.
Dianne: Charlie is lying.

Only one of the 4 people is telling the truth. Which one? Explain your answer.

(ii) They now make the following statements:

Alice: Bob is lying.
Bob: Charlie is lying.
Charlie: I like beer.
Dianne: $2+2=4$.

Now two of the four people are telling the truth. Which two? Explain your answer.

(iii) They are now joined by Egbert. They each make the following statements:

Alice: I like wine.
Bob: Charlie is lying.
Charlie: Alice is lying.
Dianne: Alice likes beer.
Egbert: Alice likes beer.

Now three of the five people are telling the truth. Which ones? Explain your answer.