**Q.1. Is it possible that an event is independent of itself? If so, when?**

Ans: The only events that are independent of themselves are those with probability either 0 or 1. That follows from the fact that a number is its own square if and only if it's either 0 or 1. The only way a random variable X can be independent of itself is if for every measurable set A, either Pr(X∈A)=1 or Pr(X∈A)=0.

**Q.2. Is it always true that if A and B are independent events, then Ac(Complement of A) and Bc(Complement of B) are independent events? Show that it is, or give a counterexample.**

Ans:

