Q1. [10 ] I propose to play a coin flipping game, in which I will pay you as follows:

(a) I give you coin to flip. You flip the coin and record the outcome: H or T.

(b) You keep flipping until the first outcome is repeated, ending the game.

(c) I pay you a $1 for each opposite outcome that appeared between the first and the last outcomes (which must agree by the rules of the game).

Thus if the sequence of tosses is HTTTTH, I pay you $4, but $0 for HH and $2 for THHT, etc.

Will you play it for $0.99?