When analyzing zero-sum and non-zero sum games we used expected value calculations to guide our analysis of what might be "rational" play. However, there is the empirical question as to whether expected value calculations actually guide what people do when playing games or, especially when making decisions.

Here are some examples which you can try to see whether you or people who you might know make decisions in ways which maximizes expected value.

In the situations below consider several scenarios:

a. You make the decision exactly once.

b. You make the decision 100 times.

c. You make the decision more than once but the exact number of times it will be available is not specified.

Whichever case is operative above, you must decide which choice to make for ALL of the times the opportunity is offered.

**Decision 1:**

a. $1000 gain with probability 1/2 and $500 loss with probability 1/2.
b. $250 gain with probability 1/2 and $250 loss with probability 1/2.
Decision 2:

a. $1000 gain with probability .9999 and $500 loss with probability .0001.
b. $1500 gain with probability 1/2 and $0 loss with probability 1/2.

Decision 3:

a. $1000 gain with probability 1/2 and $500 loss with probability 1/2.
b. $800 gain with probability 1/2 and $0 loss with probability 1/2.