HW: EXPECTIMAX

A billionaire offers us a choice among four envelopes:

- one contains $1.
- one contains $2
- one contains $5
- one contains a red "X"

We are invited to keep choosing one envelope at a time. We can stop at any time. We keep all the money in our chosen envelopes, unless we open the red "X", in which case we forfeit our winnings so far and the game immediately ends.

What is our expected profit from this game if we play optimally? Draw the expectimax tree you used to compute this value.