SPS Problem of the Week 9/26/2020-10/3/2020

Problem 1. Hedge your bets

Suppose you play a game where there are two envelopes with \$ X and \$ 2X. You are allowed to see the amount of money inside one of them without knowing which one it is. You can either keep that envelope or switch and take the other one. Come up with a scheme where your probability of picking the envelope with \$ 2X is greater than 50%