The local diner has started selling fortune cookies at $0.50 per cookie. Hidden within each cookie is a secret message. Most messages predict a good future for the buyer, but others offer money off at the diner. The probability of getting $2 off is 0.1, the probability of getting $5 off is 0.07, and the probability of getting $10 off is 0.03.

If X is the net gain, what's the probability distribution of X? What are the values of E(X) and Var(X)?

The diner decides to put the price of the cookies up to $1. What are the new expectation and variance?