Flip a fair coin 3 times. Write

$$X = \text{number of tails in the \textbf{first flip}}$$
$$Y = \text{number of tails \textbf{total}}$$

Y

		0	1	2	3
X	0	HHH	HTH, HHT	HTT	
	1		THH	THT, TTH	TTT

Suppose you receive **one dollar** for each tails, and an **extra dollar** if the first flip is tails − so your winnings are $\$(X + Y)$ dollars.

(a) What is $P(X + Y \leq 1)$?

(b) What is $E(X + Y)$?