

Math 4740 - Homework # 4 (Extra problems)

1. Suppose there are two coins. If you flip coin A it will land on heads with probability 0.6 and tails with probability 0.4. If you flip coin B it will land on heads with probability 0.7 and tails with probability 0.3.

Assume that the two coins outcomes are independent of each other. The experiment that you perform is you first flip coin A and then you flip coin B.

Let X denote the number of heads the occur when you flip the two coins. Thus X can equal 0, 1, or 2.

- (a) Find $P(X = 0)$, $P(X = 1)$, $P(X = 2)$.
- (b) Find $E[X]$.