

Homework # 8: Probability

1. Let X be an $N(0, \sigma)$ distributed random variable. Show that $EX^2 = \sigma^2$.
2. Toss a coin 4 times. Find $P(A|B)$ and $P(B|A)$, where A is the event that the first two coin flips yield H, and B is the event that you have two H's and two T's.
3. Roll two dice. Find $P(A|B)$, where A: the first die shows a 3; B: the maximum of the two numbers equals 5.
4. Problems 4.31, 32 from the book

due 10/23