

M362K Homework Assignment #6

Please, provide your complete solutions to the following problems. Final answers only, even if correct will earn zero points for those problems.

Problem 6.1. (10 points) Solve Problem **2.2.10** from the textbook (p.109).

Problem 6.2. (10 points) Solve Problem **2.2.12** from the textbook (p.109).

Problem 6.3. ($2 + 3 = 5$ points) Solve Problem **2.4.4** from the textbook (p.121).

Problem 6.4. ($10 + 10 = 20$ points) Solve Problem **2.4.6** from the textbook (p.122).

Problem 6.5. (5 points) Consider an experiment which consists of 2 independent cointosses. Let the random variable X denote the number of heads appearing. Write down the **probability mass function** of X .