



Probability and Statistics. Amth108

Winter 2023

The following is a list of recommended problems to prepare the midterm tests and the final exam.

Chapter 1: Introduction to probability and counting

1.2: 5, 7, 8

1.3: 9, 10, 11, 12, 14, 15, 17, 19, 21, 25

Rv: 29, 31, 32, 33, 34, 35

Chapter 2: Probability laws

2.1: 3, 4, 5, 6, 7, 8, 9, 11

2.2: 13, 14, 15, 16, 17

2.3: 19, 20, 21, 22, 23, 24, 27, 29, 30, 31

2.4: 34, 35, 37

Rv: 39, 40, 41, 42, 43

Chapter 3: Discrete distributions

3.1: 1, 2, 5, 6

3.2: 7, 8, 9, 10, 11

3.3: 14, 15, 16, 21a-f, 22

3.4: 24, 25, 28, 31, 32, 33, 34, 35

3.5: 37, 38, 39, 40, 41, 44

3.8: 61, 63, 64, 65, 67, 68, 71

Rv: 75, 77, 79, 80, 81, 83

Chapter 4: Continuous distributions

4.1: 1, 2, 3, 5, 6, 8 (only the distributions we covered in class), 9, 11

4.2: 15, 17, 18, 19, 21, 23

4.3: 34, 35, 36, 37, 38

4.4: 39, 41, 42, 43, 44, 46

Rv: 82, 84, 85, 86, 90, 91, 92, 93

Chapter 6: Descriptive statistics

6.1: 1, 2, 3, 4, 6

6.2: 7, 8, 9, 11, 12, 13, 14, 15

6.3: 17, 18, 20, 22, 23

Rv: 30, 31, 33

Chapter 7: Estimation

7.1: 3, 4, 5, 6, 7, 10, 11, 13

7.2: 15, 17, 16, 18, 21, 23, 25, 28, 30, 31, 34, 35, 36

7.3: 46

7.4: 47, 48, 49, 50

Rv: 52, 53, 54, 55, 59, 60, 63, 64

Chapter 8: Inferences on the mean and variance of a distribution

8.1: 1, 2, 3, 5, 7

8.2: 9a,d,f,h,j,l, 11, 13, 14

8.3: 21, 23, 24, 25, 27, 29

8.4: 31, 32, 33, 34

Rv: 59, 60, 61, 62