

## Math 107. Review sheet for the second midterm

### General remarks.

- 1) Please do remember to bring your calculator with you. You will need it!
- 2) Remember it is not a race! If you finish the test early wait a moment and use your time to read and carefully check your work once again.

### Chapter 6. Sections 1–4, 6–8.

#### The binomial distribution.

*Please be sure that you know the formula for the binomial distribution, since during the test Table I will **not** be provided.*

**Problems:** 6.8 (not using Table I), 6.15, 6.17, R.82, R.89a (without Table I) .

**The hypergeometric distribution. Approximating the hypergeometric distribution by the binomial distribution.**

**Problems:** 6.26, 6.27, **6.36**, 6.37, R.101.

**Poisson distribution. Approximating the binomial distribution by Poisson distribution.**

*Double check if you know the correct formula for Poisson distribution.*

**Problems:** 6.41, 6.43, 6.47, 6.49, R.95,

#### The mean and the standard deviation. Chebyshev's Theorem.

*Be careful when you compute the standard deviation. Check if you have not forgotten some squares or square roots. Remember what is the mean and the standard deviation for the binomial distribution.*

**Problems:** 6.61, 6.63, 6.68, 6.78, 6.81.

### Chapter 7, all sections.

#### The normal distribution.

**Problems:** 7.9, 7.11, 7.12, 7.15, 7.22, 7.23, R.85.

**Approximating different distributions by the normal distribution. The continuity correction.**

**Problems:** 7.25, 7.31, 7.32, 7.38, 7.39, 7.41, R.100.