HW4

- For honors student: read pp. 73-78.
- pages 78–82, problems 7,8.
- Study convergence of the following series:

$$\sum_{n=1}^{\infty} \frac{1}{\sqrt{n(n+1)}}, \quad \sum_{n=1}^{\infty} \left(\frac{n+1}{2n-1}\right)^n .$$

- Study convergence of the following series:

$$\sum_{n=2}^{\infty} \frac{(-1)^n}{\sqrt{n}+(-1)^n}, \quad \sum_{n=1}^{\infty} \frac{\sin n}{n} .$$

- Find all $x \in \mathbb{R}$ for which the following series converges

$$\sum_{n=0}^{\infty} (x-1)^n/n .$$

  Explain your answer.