Performance Evaluation
Homework 1

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1 Assignment

ically numbered, starting from one. Essential packages such as `amsmath` and `hyperref` are included by default.

Instead of being indented, paragraphs are separated by some white space.

Exercise 2

Each exercise (except the first) starts on a new page. You can disable this behavior using the starred version of the command: `\exercise*`.

Now, let's consider a mathematical example.

Definition 2.1 — The *standard inner product* of two vectors $\vec{x}, \vec{y} \in \mathbb{R}^n$ is defined as

$$\vec{x} \cdot \vec{y} \coloneqq x_1 y_1 + \cdots + x_n y_n.$$

Next to definitions, environments for theorems and lemmas are included as well. Furthermore, you can easily define your own with the `\NewTheorem` command.

Note that `*` can be used instead of `\cdot`, and `\R` instead of `\mathbb{R}`. (For a normal asterisk, use `\ast`.) Of course, there are also macros for the natural numbers etc. Commands such as `\abs{}` and `\set{}` can be used to create (scaled) delimiters. For example,

$$\left|\frac{1}{1-\lambda h}\right| \leq 1 \qquad \text{and} \qquad \bigcup_{i=1}^{n} \left\{ z \in \mathbb{C} \;\middle|\; |z - a_{ii}| \leq \sum\nolimits_{i \neq j} |a_{ij}| \right\}.$$

The starred version of these commands disables the auto-scaling.

Exercise Rec–2.1

Optionally, you can fully customize the numbering of each exercise …

Exercise 8

… or skip a few, using the `\setcounter{exercise}{x}` command.

For more information, refer to `https://github.com/gijs-pennings/latex-homework`.