Informatics 1, 2nd midterm (2018-11-05)

The answers should fit next to the questions, if you used a separate paper let us know clearly!

1. HTML / CSS

a) How to write CSS code embedded into the HTML code? Give an example!   *(2 points)*

b) Write the HTML code of the following list: *(2 points)*

   1. one
   2. two
   3. three

c) How do you make a link within the same HTML page but to a different part of the page? Give an example!
   (2 points)

d) Write the HTML and CSS code of the following table:
   (2 points)

a	**b**	**c**
0	1	2

   The border should be red and the headers bold.

e) Write the HTML and CSS code of the following:
   (2 points)

   This is a *word*.

   The "word" should be blue if the cursor is on top of it.

2. Write the LaTeX code of the following formulas! *(4 points)*

a) $\displaystyle\sum_{k=0}^{n} q^k = \frac{q^{n+1} - 1}{q - 1}$

b) $a^{(b^c)} \neq (a^b)^c$

c) $\left[\left(1 + \dfrac{1}{2}\right)^2 + 3 \right]^2$

d) $\dfrac{1}{1 + \frac{1}{1 + \frac{1}{1 + \ldots}}} = \dfrac{-1 + \sqrt{5}}{2}$

3. Write the LaTeX code of the following formula with matrices! *(2 points)*

$$\begin{pmatrix} a & b \\ c & d \end{pmatrix} \begin{pmatrix} a & c \\ b & d \end{pmatrix} = \begin{pmatrix} a^2 + b^2 & \\ & c^2 + d^2 \end{pmatrix}$$

4. Answer the questions (LaTeX)! *(4 points)*

a) What does the `\maketitle` command do?

b) How to use the `\ref` and `\label` commands? Give an example!

c) Which environment makes a table, how can you make a table?

d) Where does the name TeX come from?