Make a latex document for Assignment 0

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1 Instructions

You must reproduce this document *exactly* in LaTeX. Use the artical class with the 10pt and a4paper options. however, you must substitute your own name and surename for mine in the title, and use your own student number in the place of the "12345678". You will notice that I literally will test all the different text typesettings options that we covered in the course (and some more), and then also—of course – your mathe-ma-ti-cal typesetting proficiency.1 **Submission** You have to hand in on sunLearn both the pdf copy and your latext source, before you leave the venue.

2 Some mathematics to typeset

The text and mathematics below is not supposed to make sense! We just want to look at the typesetting possiblities of latex.

2.1 Symbols and layout

We can either use symbols like ϕ and π in the text mode, or we can write it in the display mode like this:

$$\phi \quad and \quad \pi.$$

2.2 Superscripts and subscripts

Type in this formula:

$$x^2 + y^{2+x} \quad \not\subset \quad x^{2x^{y+1}}$$

Sums are also useful:$\sum_{i=0}^{n} \sum_{j=0}^{m} x^{ij} + x^i$, and so are limits and integrals:

$$\int_a^b \frac{x^3 - x^4}{f'(x)g(x)} dx \leq \lim_{x \to \infty} f(x).$$

Be aware of the spacing in the equations above.

2.3 And some last technical playsetting

$$\sqrt[5]{\frac{f^2(x)}{\sqrt{g(x)!}}}$$

and

$$\exists k : k < 42\%$$

and

$$A \cup B \neq A \cap B.$$