

## Work Assignment, Tuesday, 3rd June 2020

Please complete the following tasks conscientiously and reliably. For some of the exercises you'll have video tutorials.

However, in some cases you'll receive handwritten solutions. You can find everything you need to know on the following website: [www.aleph-null.li](http://www.aleph-null.li)

Today's work assignment consists of the following task.

### **Task 1:**

Please watch the introductory videos about the graphs of the functions of  $f(x) = \sin(x)$  and  $f(x) = \cos(x)$ . Please take notes. Then print the document with the graphs and glue them into your notebook next to your hand sketches.

### **Task 2:**

Now please watch the introductory video about the three basic transformations of the aforementioned graphs. These are the transformations that we are very familiar with namely: 1) vertical translations, 2) horizontal translation and 3) the amplitude (vertical stretches and shrinks).

$$1) f(x) = \sin(x) + d \quad \text{and} \quad f(x) = \cos(x) + d$$

$$2) f(x) = \sin(x - c) \quad \text{and} \quad f(x) = \cos(x - c)$$

$$3) f(x) = a \sin(x) \quad \text{and} \quad f(x) = a \cos(x)$$

Please take notes.

*On Friday we'll look at **one more completely new** transformation. ☺*

Best of luck – have fun.

Sven Huber