



*Precalculus, September 2019, HAW Hamburg  
presented by Dr. Joerg Gayler*

## “Precalculus” 2019

Dates and rooms: Hamburg, Berliner Tor 7, September 9 to 13, Room 12.60

*On Monday, 9. 9., we exceptionally begin at 10 o'clock.*

Usual times: 9:00 to 14:30, including breaks, can be discussed.

Material for this English course “Precalculus”:

see “Precalculus” at the web page <http://math-grain.de/>

The given material corresponds however to a course of two weeks

A list of covered subjects is given below.

*The time schedule given below may still change.*

## *Introduced Topics*

- Number sets
- Powers
- Fractions
- Linear equations and functions
- Quadratic equations and functions
- Root functions, radical equations
- Logarithms
- Trigonometry
- Vector calculus
- Functions and their properties
  - Monotonicity, symmetries, implicit functions, inverse functions
  - exponential and logarithmic functions, trigonometric functions
- Derivatives ?

## Monday, 9th September :

- Welcome address, generalities
- number sets
- powers
- fractions
- powers and roots
- linear equations and functions
- all interspersed with exercises

## Tuesday, 10th September :

- repetitions, exercises
- more on linear equations and functions
- quadratic equations and functions
- the root function
- radical equations

## *Schedule*

- functions in general
- exponential function
- all interspersed with exercises

### Wednesday, 11th September :

- repetitions
- more on functions in general
- logarithms
- trigonometry

### Thursday, 12th September :

- repetitions
- vector calculus

### Friday, 13th September :

- more on vector calculus
- Derivatives? Or some tasks in groups?