**Johannes Kepler University Linz**

LIT – Secure and Correct Systems Lab

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PR Systems Programming

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Class dates: see [KUSSS](https://kusss.jku.at/kusss/coursecatalogue-searchlvareg.action?sortParam0courses=lvaName&asccourses=true&abhart=all&lvasearch=Systems%2BProgramming)

Excercise Sheet 1

**Exercise 1.1.** Determine the correct data types of the following expressions:

a) ’x’

b) ’\033’

c) 0.123456f

1. 512UL
2. 0x10F

f) 2e+10

g) 1.2345678

h) 0101

1. 0xaL

**Exercise 1.2.** Write the following macro definitions:

* + a macro EULER E that defines Euler’s constant 2.718281828
  + a macro LF that stands for line-feed, i.e., the ’\n’character
  + a macro ALERT that emits a beep by calling putchar() with argument ’\a’(char code 7)
  + a macro DOUBLE that multiplies its input value by 2 and returns the result
  + Correct the definition of the following two macros, and put them into your file as well:

**–** #define MIN(a,b)((a)*>*= (b))? (a): (b)

* + - #define Area(a,b)a∗b
    - #define FIRST = 1

Put all your definitions into a .h-file and make sure that including it twice can be done without a compiler error.