VARIABLES, EXPRESSIONS, AND STATEMENTS
Notes

• Where to find course materials

  https://moodle.ut.ee/
  https://courses.cs.ut.ee/

• How to work with course material

  Please do the homework (lecture, quiz, assignments) before practice session.

• Timetable
Expressions

• **Variables**

  Mnemomically named place in the memory where the programmer can store a value and later retrieves it using the variable name
  
  • Must start with a letter or underscore `_`
  • Must consist of letters, numbers or underscore
  • Case sensitive

• **Constants**

  • Numbers, letters, and string are constants
  • They do not change their value

  123   98.6   'Hello, world'   "Hello, world"

• `type()`

  • Types
    
    int    float    str

  • Type conversion
    
    int()    float()    str()
Expressions

• **Assignment statement** (e.g. \( x = 2 \))
  
  Go and find a place called \( x \) and store there 2

• **Assignment with expression** (e.g. \( x = x + 2 \))

• **Operators**
  
  - Addition \(+\)
  - Subtraction \(-\)
  - Multiplication \(*\)
  - Division \/
  - Power \(**\)
  - Remainder \(\%\)  
    \(\text{result of } 450\%100 \text{ is } 50\)
  - Integer part of division \(/\)  
    \(\text{result of } 450//100 \text{ is } 4\)

• **Order of evaluation** (operator precedence)
  
  \((\) \(\text{**} \text{ */%} \text{ +} \text{ -})\) \(\text{Left to right}\)

• **Reserved words**
  
  \(\text{e.g. print for elif while}\)
Input, output, comments

• **User input**
  
  name = input("Enter name: ")
  weeks = int(input("Enter weeks: "))
  rate = float(input("Enter rate: "))

• **Output**
  
  print("Hello")
  print("Hello", name)
  print("Weeks: " + str(weeks))

• **Comments**
  
  # Compute the answer