

Problem Set 0, Problems 0 and 1

Problem 0: Reading and response

Put your response to the reading below.

Q: What was the most interesting or important idea in this article for you - and why?

A: The most important idea in this article for me is digitizing tasks that were formerly done by hand such as water painting. As someone who is pursuing computer science and software engineering, algorithms are an essential part of what it is all about. It allows us to turn different elements of things such as creating patterns and shades of colors in watercolor painting into lines of code for the computer to process/create a piece of artwork. I find it amazing that complex tasks could be simplified and reimaged with computing so that a wider selection of people could do such tasks.

Problem 1: Variables, expressions and assignment statements

1-1. Tracing a simple program

line of code	x	y	z
x = 14	14		
y = 3	14	3	
y = y * 10	14	30	
z = y - x	14	30	16
x = x // 5	2	30	16
y = z % 3	2	1	16

1-2. Assignment statements and expressions involving numbers

a) `a = a + 7`

b) `b * 2`

c) `b = a/3`

d) `a**b`

1-3. Assignment statements and expressions involving strings

a) `s = "hello"`
`s[0:3:1]`

b) `s = "hello"`
`s += "ing"`

c) `s = "hello"`
`t = "bye"`
`s += t[2]`

d) `s = "hello"`
`s[-1:-6:-1]`