Problem Set 0, Problems 0 and 1

Problem 0: Reading and response

Question: *What was the most interesting or important idea in this article for you – and why?*

Answer: I think the most important idea in this article is that there are infinite parts in this world that computer science can be helpful and bring up a notch to make a better world. What I was most surprised about was the custom 3D-printed casts for patients with broken bones. Currently, we know that most of the casts are already made, which means it does not perfectly fit the patient. However, by creating a tool to generate custom 3D-printed casts, it will definitely help the patient to heal faster and move better with the cast on.

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[0:3]

b) t = t[3:]

c) s = t[-1]

d) s[::-1]