・プログラミング言語の経験

C 5years calculation for study, used at a course

C++ 0.5years only used at a course

R 0.5years only used at a course

・Taraiベンチマーク(Mac OS Catalina 10.15.6, 1.8 GHz デュアルコアIntel Core i5)

C: 0.186540秒

Python: 7.620864秒

Ruby: 5.551839秒

・tarai.c

#include <stdio.h>

#include <stdlib.h>

#include <time.h>

static long tarai(long, long, long);

int

main(int argc, char \*\*argv)

{

clock\_t start, end;

start = clock();

printf("%ld\n", tarai(13, 5, 0));

end = clock();

printf("Tarai関数(13,5,0)の実行時間: %f秒\n", (double)(end-start) / CLOCKS\_PER\_SEC);

exit(0);

}

static long

tarai(long x, long y, long z)

{

if (x<=y) {

return y;

}

else {

return tarai(tarai(x-1, y, z),

tarai(y-1, z, x),

tarai(z-1, x, y));

}

}

・tarai.py

#!/usr/bin/env python

# -\*- coding: utf-8 -\*-

import time

def tarai(x, y, z):

if x <= y: return y

return tarai(

tarai(x - 1, y, z),

tarai(y - 1, z, x),

tarai(z - 1, x, y))

st\_time = time.clock()

print(tarai(13, 5, 0))

print(time.clock() - st\_time)

・tarai.rb

#tarai.rb

#

#たらい回し関数のPureRuby実装版

require 'benchmark'

puts Benchmark::CAPTION

def tarai(x, y, z)

if x <= y then

return y

else

return tarai(tarai((x-1), y, z), tarai((y-1), z, x), tarai((z-1), x, y))

end

end

###実行

puts tarai(13, 5, 0)

puts Benchmark.measure {

tarai(13, 5, 0)

}