

CPSC120
Fundamentals of Computer Science
In-class Activity 21

1. For each of the following snippets of Python code, give what would be printed to the command line if run. If the snippet will not print anything because of an error, just put error.

- (a)

```
def a_func(an_int):
    if an_int < 3:
        print(an_int, end=" ")
        a_func(an_int + 1)
a_func(0)
```
- (b)

```
counter = 1
while counter < 3:
    print(counter, end=" ")
    counter = counter * 2
```
- (c)

```
a_string = "abcd"
print(a_string[2:4] + a_string[0:2])
```
- (d)

```
a_string = "abcd"
a_string[0] = "A"
print(a_string)
```
- (e)

```
a_string = "abcd"
for character in a_string:
    print(a_string + a_string, end="")
```
- (f)

```
a_string = "abcd"
b_string = ""
index = 0
while index <= len(a_string):
    b_string = a_string[index] + b_string
    index = index + 1
```

2. What is the negation of the Python expression `a < 0 and b > 0`?
3. What is the binary number 1.11×10^1 in decimal?
4. Can the number $1/3$ be represented with a float in Python?
5. Write a function that has one parameter, a positive integer, and prints all of the divisors of the function. Include test cases.
6. Write a function that takes a string of any length and a string of length 1. The function should return the number of times that the string of length 1 occurs in the other string. Include test cases.