

Final Exam

COMP 150: Introduction to Computing

LUC username: _____

Full name: _____

Date: _____

For each of the following problems, answer to the best of your ability. Use legible penmanship and complete sentences where merited.

1. (10 pts) For the following code snippet, answer the questions below:

```
def problem_one(a, b = 2, c = 10):  
    print("Line A")  
    d = a + b + c  
    return d  
    print("Line B")
```

a. Which arguments are positional? Which are default?

b. Is the following a valid call of this function? Why or why not?

```
problem_one( )
```

c. What is the output of the following line of code?

```
print(problem_one(2))
```

d. What is the output of the following line of code?

```
print(problem_one(1, c = 0))
```

e. Does this line from the function ever happen? Why or why not?

```
print("Line B")
```

2. (10 pts, two parts) What was the illusion offered to the user by the mainframe computer? Explain what is meant when we say users and administrators could become more separated and specialized with the widespread adoption of the mainframe computer?

3. (10 pts) What is the transistor? What is its role in modern computing? What did it replace?

4. (10 pts) Describe the differences between white-, grey-, and black-hat hackers.
