

```

# Turn in your hand-written answers at the beginning of class. Be sure to include your name.
# At 12 noon before class, post a dictionary of your answers to GitHub in the assignments directory.
# The format of this dictionary should be answerDict = {1:answer1, 2:answer2, ..., N:answerN}.
#####

# These four variables are defined here, and are used throughout the assignment.
#####
city = "chicago"
cityAsList = list(city)
vowels = "aeiou"
consonants = "bcdfghjklmnpqrstvwxyz"

#####
# String and list questions.
#####

# 1) What is the value of c?
#####
c = city[0:]

# 2) What is the value of c?
#####
b = int(len(city)/2)
c = city[0:b]

# 3) What is the value of c?
#####
b = int(len(city)/2)
c = city[0:-b]

# 4) What is the value of c?
#####
b = int(len(city)/2)
d = b - 1
c = city[d:b]

# 5) What is the value of c?
#####
b = int(len(city)/2)
c = city[:b]

```

6) What is the final value of the string orwell?

```
#####  
l1 = ["Who", " ", "controls", " ", "the", " ", "past", " ", " ", "controls", " ", "the", " ", "future", " ", " ", "\n"]  
l2 = ["Who", " ", "controls", " ", "the", " ", "present", " ", " ", "controls", " ", "the", " ", "past", " ", " ", "\n"]  
orwell = ""  
for x in l1 + l2:  
    orwell += x
```

7) What is the final value of the string orwell?

```
#####  
orwell = ""  
l1[6] = "present"  
l1[13] = "past"  
for x in l1 + l2:  
    orwell += x
```

8) What is the final value of the string orwell?

```
#####  
orwell = ""  
l2[6] = "past"  
l2[13] = "future"  
for x in l1 + l2:  
    orwell += x
```

9) What is the final value of the string orwell?

```
#####  
orwell = ""  
l2[6] = "past"  
l2[13] = "future"  
for x in l1 + l2:  
    orwell += x  
l3 = orwell.split("past")  
orwell = ""  
for x in l3:  
    if "Who" in x:  
        orwell += (x + "past")  
    else:  
        orwell += x
```

10) What is the value of i after the statement is evaluated?

```
#####  
i = 0  
if "e" in city:  
    i += 1
```

```

# 11) What is the value of i after the statement is evaluated?
#####
i = 0
if "e" not in consonants:
    i += 1

# 12) What is the value of i after the statement is evaluated?
#####
i = 0
if "e" not in city:
    i += 1
else:
    i -= 1

#####
# Loop questions.
#####

# 13) What is the value of i after the while loop runs to completion?
# There are three statements (i.e. lines) in this loop.
#         14) Which statement is inside the loop?
#         15) Which statement is outside the loop?
# 16) What is the term that describes the expression (i < len(city))?
#####
i = 0
while i < len(city):
    i += 1

# 17) What is the value of earth after the while loop runs to completion?
#####
earth = 0
while earth < len(city):
    earth += 1

# 18) What is the value of i after the for loop runs to completion?
#####
i = 0
for x in city:
    i += 1

# 19) What is the value of i after this code runs to completion?
#####
i = 0
for x in city:
    i += 1
for x in city:
    i += 1

```

```

# 20) What is the value of i after the while loop runs to completion?
#####
i = len(city)
while i > 0:
    i -= 1

# 21) What is the value of i after the while loop runs to completion?
#####
i = len(city)
j = int(len(city)/2)
while i > len(city[0:j]):
    i -= 1

# 22) What is the value of i after this code runs to completion?
#####
i = 0
for x in city:
    if x in vowels:
        i += 1

# 23) What is the value of i after this code runs to completion?
#####
i = 0
for x in city:
    if x not in consonants:
        i += 1

# 24) What is the value of i after this code runs to completion?
#####
i = 0
for x in city:
    if x not in consonants:
        continue
    else:
        i += 1

# 25) What is the value of i after this code runs to completion?
#####
i = 0
for x in city:
    if x in consonants:
        i += 1

```

26) What is the value of i after this code runs to completion?

```
#####  
i = 0  
for x in city:  
    if x not in consonants:  
        i += 1
```

27) What are the values of i and j after this code runs to completion?

```
#####  
i = 0  
j = 0  
for x in city:  
    if x in vowels:  
        j += 1  
    i += 1
```

28) What are the values of i and j after this code runs to completion?

```
#####  
i = 0  
j = 0  
for x in city:  
    if x in vowels:  
        j *= 2  
    i += 1
```

29) What are the values of i and j after this code runs to completion?

```
#####  
i = 0  
j = 0  
for x in city:  
    if x not in vowels:  
        j *= 1  
    i += 2
```

30) What are the values of i and j after this code runs to completion?

```
#####  
i = 0  
j = 0  
for x in city:  
    if x == "e":  
        j *= 1  
    i += 1
```

```

# 31) What are the values of i and j after this code runs to completion?
#####
i = 0
j = 0
for x in city:
    if x != "e":
        j *= 1
    i += 1

# 32) What are the values of i and j after this code runs to completion?
#####
i = 0
j = 0
for x in city:
    if x == "e":
        break
    i += 1

# 33) What are the values of i, j, k after this code runs to completion?
#####
i = 0
j = 0
k = 0
for x in city:
    j = 0
    while j < len(city):
        k += 1
        j += 1
    i += 1

# 34) What are the values of i, j, k, a after this code runs to completion?
#####
i = 0
j = 0
k = 0
a = 0
for x in city:
    j = 0
    while j < len(city):
        if city[j] in vowels:
            a += 1
            k += 1
            j += 1
    i += 1

```