# Containers Quiz Practice

CSCI040: Computing for the Web Introduction to Hacking

#### **Problem 1.** What is the output of the following code:

```
xs = [1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21]
total = 0
total += xs[0]
total += xs[1]
total += xs[-3]
print('total=', total)
```

#### **Problem 2.** What is the output of the following code:

```
xs = [1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21]
total = 0
total += xs[3]
total += xs[-1]
total += xs[0]
print('total=', total)
```

#### **Problem 3.** What is the output of the following code:

```
xs = [1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21]
total = 0
total += xs[5]
total += xs[-5]
total += xs[-4]
print('total=', total)
```

#### **Problem 4.** What is the output of the following code:

```
xs = [1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21]
ys = xs[3:5]
total = 0
total += ys[0]
total += ys[1]
total += ys[-1]
print('total=', total)
```

### **Problem 5.** What is the output of the following code:

```
xs = [1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21]
ys = xs[-5:-3]
total = 0
total += ys[0]
total += ys[1]
total += ys[-1]
print('total=', total)
```

#### **Problem 6.** What is the output of the following code:

```
xs = [1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21]

ys = xs[-5:-3]

total = len(ys)

print('total=', total)
```

#### **Problem 7.** What is the output of the following code:

```
xs = [1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21]

ys = xs[-5:-3]

total = sum(ys)

print('total=', total)
```

### **Problem 8.** What is the output of the following code:

```
xs = [1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21]

ys = xs[-3:-5]

total = sum(ys)

print('total=', total)
```

### **Problem 9.** What is the output of the following code:

```
xs = [1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21]

ys = xs[-3:-5:-1]

total = sum(ys)

print('total=', total)
```

#### **Problem 10.** What is the output of the following code:

```
xs = [1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21]
ys = xs[:3]
total = sum(ys)
print('total=', total)
```

### **Problem 11.** What is the output of the following code:

```
xs = [1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21]

ys = xs[:3]

total = min(ys)

print('total=', total)
```

### **Problem 12.** What is the output of the following code:

```
xs = [1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21]

ys = xs[:3]

total = max(ys)

print('total=', total)
```

#### **Problem 13.** What is the output of the following code:

```
xs = [1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21]
ys = xs[7:]
total = sum(ys)
print('total=', total)
```

### **Problem 14.** What is the output of the following code:

```
xs = [1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21]

ys = xs[-3:]

total = sum(ys)

print('total=', total)
```

### **Problem 15.** What is the output of the following code:

```
xs = [1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21]
total = 0
for i in range(3):
    total += xs[i]
print('total=', total)
```

## **Problem 16.** What is the output of the following code:

```
xs = [1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21]
total = 0
for i in range(3, 8, 2):
    total += xs[i]
print('total=', total)
```

### **Problem 17.** What is the output of the following code:

```
xs = [1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21]
total = 0
for i in range(-3, -6, -1):
    total += xs[i]
print('total=', total)
```

### **Problem 18.** What is the output of the following code:

```
xs = [1, 3, 5]
total = 0
for x in xs:
    total += x
print('total=', total)
```

### **Problem 19.** What is the output of the following code:

```
xs = [1, 3, 5]
total = 0
for x in xs:
    for i in range(3):
        total += x*i
print('total=', total)
```

# **Problem 20.** What is the output of the following code:

```
xs = [1, 3, 5]
ys = [2, 4, 6]
total = 0
for x in xs:
    total += x
    for y in ys:
        total -= x*y
print('total=', total)
```

#### **Problem 21.** What is the output of the following code:

```
xss = [[1, 3, 5], [2, 4], [0, 1, 2, 3, 4, 5]]
total = 0
total += xss[0][0]
total += xss[1][1]
total += xss[2][2]
print('total=', total)
```

### **Problem 22.** What is the output of the following code:

```
xss = [[1, 3, 5], [2, 4], [0, 1, 2, 3, 4, 5]]
total = 0
total += xss[1][0]
total += xss[0][1]
total += xss[0][2]
print('total=', total)
```

#### **Problem 23.** What is the output of the following code:

```
 \begin{array}{l} xss = \left[ \left[ 1 \,,\; 3 \,,\; 5 \right],\; \left[ 2 \,,\; 4 \right],\; \left[ 0 \,,\; 1 \,,\; 2 \,,\; 3 \,,\; 4 \,,\; 5 \right] \right] \\ total = 0 \\ total += xss \left[ -1 \right] \left[ 0 \right] \\ total += xss \left[ 0 \right] \left[ -1 \right] \\ total += xss \left[ -2 \right] \left[ 2 \right] \\ \textbf{print} \left( \text{'total='},\; \text{total} \right) \\ \end{array}
```

#### **Problem 24.** What is the output of the following code:

```
xss = [[1, 3, 5], [2, 4], [0, 1, 2, 3, 4, 5]]
total = 0
for xs in xss:
    total += xs[0]
    for x in xs:
        total += x
print('total=', total)
```

#### **Problem 25.** What is the output of the following code:

```
xss = [[1, 3, 5], [2, 4], [0, 1, 2, 3, 4, 5]]
total = 0
for xs in xss:
    total += xs[0]
    for x in xs:
        total %= x
print('total=', total)
```

#### **Problem 26.** What is the output of the following code:

```
xss = [[1, 3, 5], [2, 4], [0, 1, 2, 3, 4, 5]]
total = 0
for i in range(2):
    for j in range(len(xss[i])):
        total += xss[i][-j]
print('total=', total)
```