

CSE 160 Section 2 Solutions

Data Types

1. Solutions:

- a. 42 integer
- b. 72.333 float
- c. 10.4 float
- d. True bool (or truth value)
- e. True bool (or truth value)
- f. False bool (or truth value)
- g. "May the force be with you." string
- h. True bool (or truth value)

Lists, Range, & Loops

2. Possible solutions:

- a. `list(range(4))` or `list(range(0, 4, 1))`
- b. `list(range(-4, 1))` or `list(range(-4, 1, 1))`
- c. `[0, 2, 4, 6, 8]`
- d. `[2, 5, 8]`
- e. `list(range(25, -1, -5))`
- f. `[1000, 900, 800, 700, 600, 500, 400, 300, 200, 100, 0]`

3. Output:

2
12
30

4. Possible solutions appear below:

```
for value in [8, 9, 10, 11, 12]:  
    print(3 * value)
```

or

```
for value in range(24, 37, 3):  
    print(value)
```

Nested Loops & If Statements

5. Output:

```
2
3
4
3
4
5
4
5
6
```

6. Output: 18

```
7. words = ["hello", "world", "python", "yellow"]
   l_count = 0
   for word in words:
       for letter in word:
           if letter == 'l':
               l_count = l_count + 1
   print(l_count)
```

```
8. total = 0
   for age in ages:
       if age > 20:
           total = total + 1
   print(total)
```

```
9. thirties = 0
   twenties = 0
   under_twenty = 0
   for age in ages:
       if age >= 30:
           thirties = thirties + 1
       elif age >= 20:
           twenties = twenties + 1
       else:
           under_twenty = under_twenty + 1
   print(thirties)
   print(twenties)
   print(under_twenty)
```

