

CSE 160 Section 1 Problems

1. For each expression, write the resultant value and the data type of the value (for instance, Integer)

- a. 42
- b.  $42 + 91 / 3.0$
- c.  $42 / 5 + 2.0$
- d. True
- e.  $42 < 45$
- f. `not 42 < 91`
- g. "May the force be with you."
- h. `float(3) < 9`

2. For each list write an equivalent `range()` call. For each `range()` call give the corresponding list.

- a. `[0,1,2,3]`
- b. `[-4,-3,-2,-1,0]`
- c. `range(0,10,2)`
- d. `range(2,11,3)`
- e. `[25,20,15,10,5,0]`
- f. `range(1000,-100,-100)`

3. Write the output to the following program:

```
for value in [1, 3, 5]:
    print value + value ** 2
```

4. Write a for loop that will print the result of multiplying 3 by the numbers 8 through 12. The example solution is two lines long. Your output should read:

```
24
27
30
33
36
```

5. Write the output to the following program:

```
for i in [1, 2, 3]:
    for j in [1, 2, 3]:
        print i + j
```

6. Write the output to the following program:

```
sum = 0
for i in [1, 2, 3]:
    for j in [1, 2, 3]:
        sum = sum + i

print sum
```

CSE 160 Section 1 Solutions

1. Solutions appear below:

- a. 42. integer
- b. 72.333 float
- c. 10.0 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)

2. Possible solutions appear below:

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

3. The output appears below:

```
2
12
30
```

4. Possible solution appears below:

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

or

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

5. The output appears below:

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

6. The output appears below:

```
18
```