

Name & Recitation Section:

Due **Friday, Jan 7 at 3 PM in 32-044**. Please print out your code files (`homework_2.py`, `nims.py`, `strings_and_lists.py`, and any code you wrote for optional problems), and staple them to the back of these exercises before turning them in.

Warm up – Recollections

Recall that a string is *immutable*, while a list is *mutable*. What does this mean?

string is immutable, which means you can't change character in one string directly, you should slice the string to generate new one.

Exercise 2.11 – String Operations

String operators might be a little less intuitive than those on numbers. This exercise will give you a chance to practice those. Given the following variables:

```
look = 'Look at me!'
now = ' NOW'
```

What are the values of the following expressions? Try to guess on your own before using your interpreter (but feel free to use your interpreter once you get stuck).

1. `look[:4]`
2. `look[-1]`
3. `look*2`
4. `look[:-1] + now + look[-1]`
5. `now[1]`
6. `now[4]`
7. `look*2 + look[:-1] + now + look[-1]`

For more on strings, see: <http://docs.python.org/release/2.6.6/library/stdtypes.html#string-methods>

2.12 – List Operations

For the following, write the line(s) of code that will emit the given Output. For each problem there may be more than one correct answer; just give one. More on lists: <http://docs.python.org/release/2.6.6/tutorial/datastructures.html>

```
1. >>> a_list = [3, 5, 6, 12]
   >>> YOUR CODE HERE
   3
```

```
2. >>> a_list = [3, 5, 6, 12]
   >>> YOUR CODE HERE
   12
```

```
3. >>> a_list = [3, 5, 6, 12]
   >>> YOUR CODE HERE
   [5, 6, 12]
```

```
4. >>> a_list = [3, 5, 6, 12]
   >>> YOUR CODE HERE
   3
   5
   6
   12
```

```
5. >>> a_list = [3, 5, 6, 12]
   >>> YOUR CODE HERE
   [12, 6, 5, 3]
```

```
6. >>> a_list = [3, 5, 6, 12]
   >>> YOUR CODE HERE
   [9, 15, 18, 36]
```

```
7. >>> a_list = [3, 5, 6, 12]
   >>> YOUR CODE HERE
   [False, False, True, True]
```

Hint: Stuck on 6 or 7? Try doing Exercise 2.10 first...

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