

Assignment 1B

June XX, 2017

Task 1 - If Statements

Now that we've got a handle on boolean expressions, we can start writing code that can make decisions. **Paste the following into IDLE:**

```
x = 10
if x < 5:
    print("x is greater than 5")
else:
    print("x is less than or equal to 5")
```

Does this do what you expect? Now **fix condition in the if statement** so it really does print the correct information.

Task 2 - List Access

Recall the list from the slides. **We will first assign it to a variable:**

```
ls = [1, 2, 'hello', 3.4]
```

Now **type the following into the interpreter:**

```
ls[0]    ls[1]    ls[2]    ls[3]    ls[-1]
```

Do they do what you expect. In particular, what does the last one do?

Task 3 - Length of List

If we have a list:

```
ls = [2, 4, 6, 8, 10]
```

then just like with strings, we can **get the length of a list with the len function**.

```
len([])
```

```
len([1, 2, 3])
```

```
len(ls)
```

Now complete the following code that prints “hi” if the length of the list “ls” is greater than 3:

```
if X:
```

```
    print(Y)
```

Finish off this code by replacing the X and Y with the correct expressions.

Task 4 - Splicing a List

We now look at how we can splice a list. If we have a list:

```
ls = [2, 4, 6, 8, 10]
```

we can take the middle part of this list using either:

```
ls[1:4]
```

```
ls[1:-1]
```

Make sure you understand why that works, and **why the first case is problematic if ls had more elements**. Finally, we can actually **reverse a list** easily using:

```
ls[::-1]
```

