1. Write a function called `saveSensors` which takes an integer parameter, `n`. The function should store `n` light sensor readings from the robot in a list. The function should return the list. Light sensor readings can be obtained by using the function `getLight("center")`.

```python
def saveSensors(n):
    lightList = []
    for num in range(n):
        val = getLight("center")
        lightList.append(val)
    return lightList
```

2. Write a function which takes an integer, `n`, as a parameter. It that will print the numbers 1,2,3...n in that order. You must use only a FOR loop. When you have that working, re-write the function to use only a WHILE loop.

```python
def loop(n):
    for x in range(n+1):
        print x

def loop(n):
    x = 0
    while x <= n:
        print x
        x = x + 1
```

3. What is printed when the following code is executed?

```python
l = ["open", "close", "in", "out", "up", "down"]
for i in range(0,6,2):
    print l[i]
```

```
open
in
up
```

4. Assume `turn90degrees()` has been defined as below so that the robot turns 90 degrees to the right. Assume `nudge(x)` has been defined to move the robot forward x units.

```python
def turn90degrees():
    turnRight(1,1)

def nudge(x):
    forward(1,x)
```

The following code makes the robot draw the trajectory on the right.
nudge(1)
turn90degrees()
nudge(1)
nudge(2)

draw the robot's trajectory when the following code is executed. label the length of each move (nudge) using numbers as in the above example.

```
turns = [2, 6]
for index in [2, 2, 6, 2, 1]:
    if index in turns:
        turn90degrees()
        nudge(index + 1)
```

5. The following code has been executed in IDLE. For each print statement below, write what should be printed.

```python
>>> mylist = ["Hello", 88.5, 100, "cs190"]
>>> print len(mylist)
4
>>> print mylist[0]
Hello
>>> print mylist[len(mylist)]
error
>>> print mylist[2:]
[100, "cs190"]
>>> print mylist[0:2]
["Hello", 88.5]
```
>>> mylist.append(140)
>>> print mylist
['Hello', 88.5, 100, 'cs190', 140]
>>> mylist[0] = 4
>>> mylist[3] = 200
>>> print mylist
[4, 88.5, 100, 200, 140]
>>> mylist.sort()
>>> print mylist
[4, 88.5, 100, 140, 200]
>>> mylist.reverse()
>>> print mylist
[200, 140, 100, 88.5, 4]

6. Act like the python interpreter and "run" the following program. What does this program print?

```python
def fun1(x):
    print "Fun1 x:", x
    return x * 2

print "Start"
y = fun1(10)
if (5 > y):
    print y
elif (15 > y):
    print y + 10
elif (25 > y):
    print y + 100
elif (35 > y):
    print y + 1000
else:
    print y + 10000

print "End"
```

Start
Fun1 x: 10
120
End