Question 1

Write the results of these Python statements:

```python
>>> for i in range(-4,7,2):
    print(i)

>>> for i in range(8,-3,-1):
    print(i**2)

>>> for i in range(10):
    print(i//2)
```

Question 2

Write the results of these Python statements:

```python
>>> a = [1, 3, 5, 2, 4, 6]
>>> for x in a:
    print(2**x)

>>> a = [2, 4, 6, 5, 3, 1]
>>> for i in range(len(a),0,-1):
    print(a[-i]+1)
```
>>> a = "cat dog"
>>> b = [2, 5, 1, 4, 3, 6, 5, 1, 2]
>>> c = ""
>>> for i in b:
    c = c + a[i]
>>> print(c)

>>> a = "immutable"
>>> b = ""
>>> for c in a:
    b = c + b
>>> print(b)

>>> a = "Einstein"
>>> for i in range(len(a)):
    print(a[:i])

Question 3

Given the following Boolean variables with assigned values:

>>> a = True
>>> b = False
>>> c = True

What are the values of the Boolean variable d in each case?

>>> d = (a or b) or c

>>> d = a or (b or c)

>>> d = not(a and c)
>>> d = (a or b) and (b or c)

>>> d = (a or b) and not(b or c)

**Question 4**

Given the string `s = "logic will get you from a to b"`, what would the following Python code print?

```python
m = len(s)//5
for i in range(m+1):
    print(s[5*i:5*i+5])
```

**Question 5**

Consider the following Python code:

```python
i = n
while(i>1):
    print(i)
    if (i%2 == 0):
        i = i//2
    else:
        i = 3*i + 1
```

What will this code print input  `n = 13`

What will this code print input  `n = 8`

What will this code print input  `n = 7`
Question 6

Assume that the turtle `bob` is facing right and in the left bottom corner of the window, as shown. Draw the traces of the turtle `bob` for each given code. Indicate the final location and direction of the turtle.

```python
bob.left(45)
for i in range(3):
    bob.forward(100)
    bob.left(120)
```

```python
for i in range(4):
    bob.forward(100)
    bob.left(60)
```

```python
for i in range(3):
    bob.forward(100)
    bob.left(60)
    bob.backward(50)
    bob.left(60)
```

```python
bob.left(45)
for i in range(4):
    bob.forward(100)
    bob.left(45)
    bob.backward(50)
    bob.left(45)
```