1. What is the output of the following program?

```python
for num in range(3):
    print("current number ", num)
```

2. What is the output of the following program?

```python
for num in [0, 5, 7, 2]:
    print("your number is", num)
for next in range(3):
    print(next, num-next," ".join([" . . . " for _ in range(3)]))
print("...", num % next)
```
3. What is the output of the following program?

```python
for i in range(3):
    for j in range(i+1):
        print('*', end=" ")
    for j in range(2):
        print(i + j + 1, end=" ")
    print()
```

4. What is the output of the following program?

```python
scale = 5
for i in range(scale):
    print ('->', end=" ")
    for j in range(scale-i):
        print (j+1, end=" ")
    print ('<-')
```
5. Write a program using nested `for` loops to print the following pattern:

```
-> 1 <-
-> 1 2 <-
-> 1 2 3 <-
-> 1 2 3 4 <-
-> 1 2 3 4 5 <-
```

6. What is the output of the following program?

```python
for i in range(3):
    for j in range(3-i):
        print(i+j+1, end=" ")
    for j in range(i+1):
        print('*', end=" ")
print()
```
7. Write a program using nested `for` loops to print the following pattern:

```
* * * * 5  
* * * 5 4  
* * 5 4 3  
* 5 4 3 2  
* 5 4 3 2 1  
```

8. What is the output of the following program with the input `hello`?

```python
word = input("Give me a word: ")
for num in range(len(word)):
    temp = ""  
    print(str(num)+": ", end="")
    if num % 2 == 0:
        for ltr in word:
            temp = ltr+temp
    else:
        for ltr in word:
            temp = temp+ltr
    print (temp)
```
9. What is the output of the following program with the input `cat`?

```python
word = input("Give me a word: ")
accum = ""
for ltr in word:
    accum += ltr + " ">
    temp = ""
    if len(accum) % 2 == 0:
        for ltr2 in word:
            temp = ltr2 + " " + temp
    else:
        for ltr2 in word:
            temp = temp + " " + ltr2
    accum += temp
print(accum)
```