

Python Homework 6

In the following multiple choice questions, please circle the correct output of Python code.

1.

```
count = 1
while count>0:
    count=count+1
    print("hello")
```

How many times hello will be printed?

(a) once (b) twice (c) 10 times (d) infinite times (e) no printout at all

2.

```
nums=[1,2,3,4,5]
for i in range(0,5,2):
    nums[i]=nums[i]+i
print(nums)
```

(a) [1,2,3,4,5] (b) [5,4,3,2,1] (c) [1,2,5,4,9] (d) [2,2,6,4,10] (e) [1,3,3,7,5]

3.

```
nums=[1,2,3,4,5]
idx=[0,1,0,2,3]
for i in range(0,len(idx)):
    print(nums[idx[i]])
```

(a) 1 2 3 4 5 (b) 1 2 1 3 4 (c) 5 4 3 2 1 (d) 4 3 1 2 1 (e) 1 0 3 2 4

4.

```
nums=[1,2,3,4]
idx=[3,2,1]
value=[6,7,8]
for i in range(0,len(idx)):
    nums.insert(idx[i], value[i])
print(nums)
```

(a) [1,2,3,4] (b) [1,2,3,4,6,7,8] (c) [6,7,8,1,2,3,4]
(d) [1,8,2,7,3,6,4] (e) [1,6,2,7,3,8,4]

5.

```
nums=[1,3,5,3,2,6,2,1,3]
for i in range(0,len(nums),2):
    if (i < len(nums)):
        del nums[i]
print(nums)
```

(a) [3,5,2,6,1,3] (b) [3,3,6,1] (c) [1,5,2,2,3] (d) [1,3,2]
(e) [1,2,3]

Coding question 1:

Please make a function `mix_lists(list1, list2)` which should return another list with all values mixed from both list. For example, with list `[1,2,3,4,5]` and `[6,7,8,9,10]`, return value should be `[1,6,2,7,3,8,4,9,5,10]`.

Coding question 2:

For last class we made animation snow with all snowflakes same radius 5. Add some code to make all snowflakes different random radius. Radius range is 5 to 10.

Coding question 3:

For last class we made animation snow with all snowflakes same speed 5. Add some code to make all snowflakes moving with different random speed. Speed range is 3 to 10. Keep in mind that you need another speed list `snow_speed_y` then each snow flake will have its own speed.