

# Results

Shang Xiao — 1st Attempt



10  
Out of 10 points

153:44:58  
Time for this attempt

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## Attempt History

Results	Points	Score	(Highest score is kept)
<a href="#">Attempt 1</a>	10 of 10	100%	(Highest score)

## Your Answers:

1 2 / 2 points

What are two types of loops? Give examples of each.

Two types of loops are *while* loop and *for* loop.

*while* loop is a type of loop that can repeat a code block over and over again until we tell it to stop, but *while* loop is not so smart since what it does is just basically two things, loop forever or stop.

*for* loop is another type of loop in addition to the *while* loop. *for* loop is smarter than the *while* loop, as known as count-controlled loops. We can specify how many times we want the loop to run, which there is not such condition built in the *while* loop.

*while* loop code example:

```
def main():
    word = input("Enter word:")
    index = 0
    while index < len(word):
        print(word[index])
        index += 1

main()
```

This piece of code takes one word (string) as user input and print out each character from index 0. The *while* condition is used in line 4.

*for* loop code example:

```
# Q7
def main():
    n = input("Please enter your numbers, split by space:").split()
    for i in range(len(n)):
        n[i] = int(n[i])
    lstin = n
    lstout = []

    if len(lstin) == 0:
        print("Invalid input")
    else:
        for even in lstin:
            if even % 2 == 0:
                lstout.append(even)
        print(lstout)
```

This piece of code is taken from my own solution in module 6 coding practice, it takes a list of numbers from the user and then returns a new list that contains only the even elements of the list. The *for* condition is used in line 3 and line 11.

Correct

2 2/2 points

Provide the code for a function that prints out the first 10 multiples of 5.

```
def main():
    for i in range(51):
        if i % 5 == 0 and i!=0:
            print(i)

main()
```

Correct

3 1/1 point

What kind of loop did you write for question 2? How do you know?

for loop.

In line 2, there are key words 'for' and 'in' used.

Also, since we know how many times we want the loop to run, in this case, we want to find the first 10 multiples of 5, this means we can set the range to 51 to accomplish this, note that we use 51 instead of 50 because for loop range does not include the ending value.

Correct

4 2 / 2 points

Write a function that has a list as its parameter and prints out 5 times each element in the list.

```
def main(list):
    for i in list:
        print(5 * i)

main()
```

Correct

5 1 / 1 point

If you wanted to write code that changes the values in the list, how would you do that?

Pass the list into a function as an argument and changes the values in the function.

The value of the list will be changed even the list is not returned.

This is mainly because list is a mutable object.

Correct

6 2 / 2 points

Give the code to print out all the locations in a game board which is stored as a list of lists.

```
def main(game_board):
    for row in game_board:
        for item in row:
            print(item, end = " ")
        print("")

main()
```

Correct