문제: 함수과제1

코드: (코드를 사진으로 캡쳐하여 붙여넣어 주세요)

```
class Set:
    def __init__(self,my_list):
        new_list = []
        self.new_list = new_list
        self.my_list = my_list
        for v in my_list:
            if v not in new_list:
                new_list.append(v)

    def __str__(self):
        return str(self.new_list)


    def add(self,elem):
        for v in self.new_list:
            if elem not in self.new_list:
                self.new_list.append(elem)
        return self.new_list

    def discard(self,elem):
        for v in self.new_list:
            if elem in self.new_list:
                self.new_list.remove(elem)
        return self.new_list

    def clear(self):
        self.new_list = []

    def __len__(self):
        return len(self.new_list)


    def __contains__(self,elem):
        if elem in self.new_list:
            return True
        else:
            return False

    def __le__(self,other):
        return self.new_list <= other.new_list

    def __ge__(self,other):
        return self.new_list >= other.new_list
```

```
    def __or__(self,other):
        setlist1 = []
        orself = []
        orother = []
        for i in self.new_list:
            orself.append(i)
        for t in other.new_list:
            orother.append(t)

        for x in orself:
            if not x in setlist1:
                setlist1.append(x)
        for x in orother:
            if not x in setlist1:
                setlist1.append(x)
        return setlist1

    def __and__(self,other):
        andself = []
        andother = []
        setList2 = []
        for i in self.new_list:
            andself.append(i)
        for t in other.new_list:
            andother.append(t)

        for x in andself:
            if x in andother:
                setList2.append(x)
        return setList2
```

```
    def __sub__(self,other):
        subself = []
        subother = []
        addlist = []
        for i in self.new_list:
            subself.append(i)
        for t in other.new_list:
            subother.append(t)
        for x in subself:
            if x in subother:
                addlist.append(x)
        for y in addlist:
            subself.remove(y)
        return subself

    def __isub__(self,other):
        subself = []
        subother = []
        addlist = []
        for i in self.new_list:
            subself.append(i)
        for t in other.new_list:
            subother.append(t)
        for x in subself:
            if x in subother:
                addlist.append(x)
        for y in addlist:
            self.new_list.remove(y)
        return self.new_list
```

```
    def __ianb__(self,other):
        andself2 = []
        andother2 = []
        setList3 = []
        for i in self.new_list:
            andself2.append(i)
        for t in other.new_list:
            andother2.append(t)
        self.new_list.clear()

        for x in andself2:
            if x in andother2:
                self.new_list.append(x)
        return self.new_list


    def __ior__(self,other):
        setlist2 = []
        orself2 = []
        orother2 = []
        for i in self.new_list:
            orself2.append(i)
        for t in other.new_list:
            orother2.append(t)
        self.new_list.clear()
        for x in orself2:
            if not x in self.new_list:
                self.new_list.append(x)
        for x in orother2:
            if not x in self.new_list:
                self.new_list.append(x)
        return self.new_list
```

결과: (결과를 사진으로 캡쳐하여 붙여넣어 주세요)

[45]

```
a = Set([1,2,3,4])
b = Set([1,2,3,4])

print(a)
print(b)
print()

a.discard(4)
b.discard(1)
print(a)
print(b)
print()

print(len(a))
print(1 in a)
print(1 in b)
print()

print(a | b)
print(a & b)
print(a  - b)
print()

print(a <= b)
# print(a<= a | b)
print(a >= b)
# print(a >= a&b)
print()

b.clear()
print(b)
print()
```

```
[1, 2, 3, 4]
[1, 2, 3, 4]

[1, 2, 3]
[2, 3, 4]

3
True
False

[1, 2, 3, 4]
[2, 3]
[1]

True
False

[]
```

[46]

```
a = Set([1,2,3])
b = Set([3,4])
address_a = id(a)
a |= b
print(a)
print(address_a == id(a))
print()

a = Set([1,2,3])
b = Set([3,4])
address_a = id(a)
a &= b
print(a)
print(address_a == id(a))
print()

a = Set([1,2,3])
b = Set([3,4])
address_a = id(a)
a -= b
print(a)
print(address_a == id(a))
print()
```

```
[1, 2, 3, 4]
False

[3]
False

[1, 2]
False
```