1. **1 / 1 punto**

```
def sum(n):
   if n == 1:
       return 0
   return n + sum(n-1)

a = sum(5)
print(a)
```

What will be the output of the recursive code above?

- ○ 15
- ○ RecursionError: maximum recursion depth exceeded
- ◉ 14
- ○ 0

✓ **Correcto**
Correct! The output will be the sum of values from 2 to 5.

2. Statement A: A function in Python only executes when called. **1 / 1 punto**

Statement B: Functions in Python always returns a value.

- ○ Both A and B are True
- ○ B is True but A is False
- ◉ A is True but B is False
- ○ Both A and B are False

✓ **Correcto**
Correct! Functions need to be called and don't always have to return a value.

3. **1 / 1 punto**

```
some = ["aaa", "bbb"]

#1
def aa(some):
   return

```

```
#2
def aa(some, 5):
   return

#3
def aa():
   return

#4
def aa():
   return "aaa"
```

Which of the above are valid functions in Python? (Select all that apply)

- [x] 4

  Correcto
  Correct. You can return a string such as “aaa” from a function.

- [x] 3

  Correcto
  Correct. An empty function can exist even if it has no functionality.

- [x] 1

  Correcto
  Correct. The function can return even if the argument passed is unused

- [ ] 2

4.For the following code: **1 / 1 punto**

```
numbers = [15, 30, 47, 82, 95]
def lesser(numbers):
   return numbers < 50

small = list(filter(lesser, numbers))
print(small)
```

If you modify the code above and change filter() function to map() function, what will be the list elements in the output that were not there earlier?

- ◯ 15, 30, 47
- ◯ 15, 30, 47, 82, 95

- ○ 82, 95
- ◉ None of the other options

Correcto

Correct! The values returned by the map() function in this case are boolean values from the comparison done in the lesser() function. So the right answer is: True, False.