CSC148H1S

In class exercise, Mar 21, 2018

What would be Big-oh complexity of the following functions with respect to their input size n?

```python
def f4(n:int)->None:
    list_ = list(range(n))
    return len(list_)
```

```python
def f5(n:int)->list:
    list_ = list(range(n))
    return list_.append(list_[len(list_) - 1] + 1)
```

```python
def f6(n:int)->int:
    sum = 0
    for i in range(n // 2):
        sum += i * n
    return sum
```

```python
def f7(n:int)->int:
    sum,i = 0, n
    while i > 1:
        sum += i * n
        i = i // 2
    return sum
```

```python
def f8(n:int)->int:
    sum = 0
    for i in range(n // 2):
        for j in range(n**2):
            sum += (i + j) * n
    return sum
```

```python
def f9(n:int)->int:
    sum = 0
    if n % 2 == 0:
        for i in range(n * n):
            sum += 1
    else:
        for i in range(n + 100):
            sum += i
    return sum
```