Python Efficiency

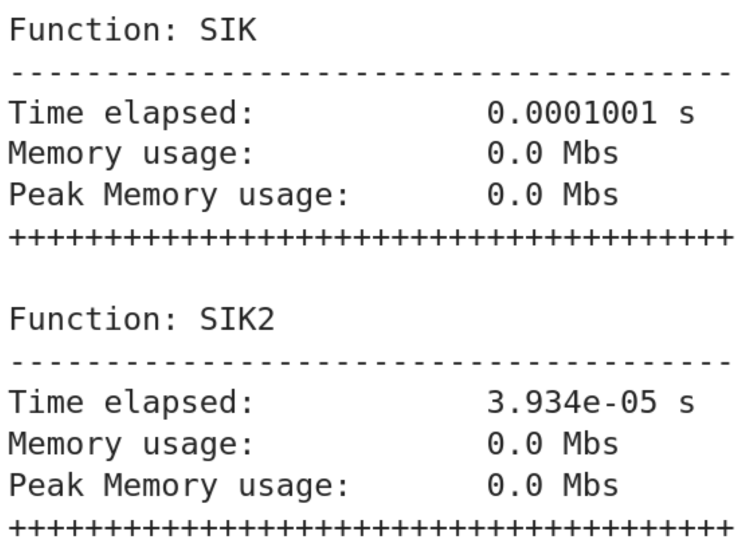
Split up multiple rules

```python
if n == 0:
        return None
if W == 0:
        return None
if n != len(values):
        return None
```

is ~2x as fast as making all of the stipulations on one line

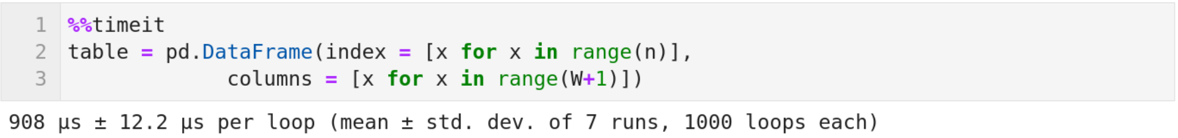
```python
if n == 0 or W == 0 or n != len(values):
        return None
```

Results



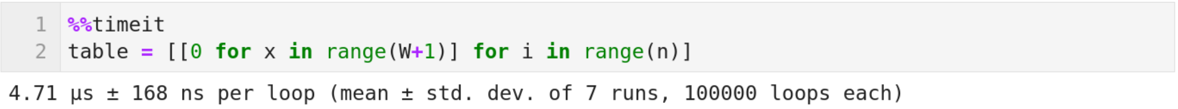
```
Function: SIK
--------------------------------------
Time elapsed:               0.0001001 s
Memory usage:               0.0 Mbs
Peak Memory usage:          0.0 Mbs
++++++++++++++++++++++++++++++++++++++

Function: SIK2
--------------------------------------
Time elapsed:               3.934e-05 s
Memory usage:               0.0 Mbs
Peak Memory usage:          0.0 Mbs
++++++++++++++++++++++++++++++++++++++
```

Making a pandas dataframe is expensive



```python
%%timeit
table = pd.DataFrame(index = [x for x in range(n)],
                     columns = [x for x in range(W+1)])
```

```
908 µs ± 12.2 µs per loop (mean ± std. dev. of 7 runs, 1000 loops each)
```



```python
%%timeit
table = [[0 for x in range(W+1)] for i in range(n)]
```

```
4.71 µs ± 168 ns per loop (mean ± std. dev. of 7 runs, 100000 loops each)
```