

## Informatics 2, 1<sup>th</sup> midterm (2018-03-09)

1	2	3	4	5	6	7	$\Sigma$

The answers should fit next to the questions, if you used a separate paper let us know clearly!

1. What will be printed after these python commands? (3 points)

a) 

```
L = [1, 2, 5, 6, 7]
for i in range(len(L)):
    print L[i]**2
print L
```

b) 

```
L = ["Cecil", "April", "Bob"]
for x in sorted(L):
    print x
print L
```

c) 

```
L = [1, 2, 5]
p = 0
for i in range(len(L)):
    p += i*L[i]
print p
```

2. Write a function called *sumdict* which has one parameter, a dictionary, and sums up its values. (4 points)

Example:

```
print sumdict({'ropi' : 0.1, 'so' : 0.99})
```

Result:

1.09

3. Theoretical questions (3 points)

a) What does the list's *sort* method do? Give an example!

b) How to make an empty dictionary?

c) What does the *input* function do?

4. The following code sums numbers in a list. Modify the code to calculate the product of the even numbers in the list. *(2 points)*

```
def prodfunction(l):  
    s = 0.0  
    for x in l:  
  
        s += x  
  
    return s  
  
print prodfunction([4, 2])  
print prodfunction([4, 5, 2])
```

Output:

```
8  
8
```

5. Write a python function which tells whether a number is prime or not. Return **True** if it is a prime and **False** otherwise! *(2 points)*

```
def isapime(x):
```

6. Write a polite python code that reads a name from the user and then prints a greeting with the appropriate name. *(2 points)*

Example:

```
Brian  
Hello Brian!
```

7. There are 4 mistakes in the following code, what are they? *(4 points)*

```
def function1(x, y):  
    s = 0.0  
    for i in range(len(x)):  
        s += x[i] * y(i)  
    if s > 1:  
        return 1  
    elif s < -1:  
        return -1  
    returnx
```