1	2	3	4	5	6	7	$\sum$

Informatics 2, 1th midterm (2017-03-13)

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)
```
d = {'kutya':5, 'malna':2, 7:34, 12:5}
d['pocok'] = 19
s = 0
for k in d:
    s += d[k]
print s
```

b)
```
L = [1, 2, 5, 6, 7, 9]
for i in range(len(L)):
    if i % 2 == 0:
        L[i] += 1
print L
```

c)
```
m = [[6, 3], [4, 2]]
for s in m:
    s.sort()
    print s
```

2. Write a function called *salty*! The parameters are two dictionaries: *(4 points)*

- *sotartalom* contains a dictionary of salt contents (measured in percent) of products keyed by the product's name.
- *raktar* is also a dictionary containing product quantities in our store.
- We wish to calculate how many nett salt are there in our store.

Example:

```
print salty({'ropi' : 0.1, 'so' : 0.99}, {'so' : 2})
```

Result:

```
1.98
```

3. Theoretical questions *(2 points)*

a) What is the list's *append* method for?

b) Which one can be a key of a dictionary: `[2, 3]` or `(2, 3)`? Why?

c) How to write a \ symbol in a string?

d) What is the difference between *input* and *raw_input*?

4. Finish the following piece of code to give the right result: *(3 points)*

```
def unitvector(              ):
```

```
print unitvector(4, 2)
print unitvector(5, 4)
print unitvector(3, 1)
```

Output:

```
[0, 1, 0, 0]
[0, 0, 0, 1, 0]
[1, 0, 0]
```

5. Write a python code which does the followings: *(4 points)*

- The function *paratlan* having a single parameter, a list, which decides whether there are more odd numbers in the list or less. True if there are more, false if not.
- After defining the function, read 20 numbers from the user, store them in a list and print the result of the function on this list.

6. There are 4 mistakes in the following code, what are they? *(2 points)*

```
def pontertek(x, y):
    tav = (x * x + y * y) ** 0.5
    if tav => 10:
        return 0
    else
        return 10 - int(tav)

def kiertekel(cel, l):
    s = 0
    for e in range(len(l)):
        s += pontertek[cel[0] - e[0], cel(1) - e[1]]
    return s
```

7. Which one of these strings match the regex `[A-E]*.?[^0-9]*` ? *(2 points)*

ABECabbb A2 BAB12 a343 ABCE2^ A22222 ABAC 2b