# Exercitiul 1

```
#pentru input
#12 2 345 -1 2 3 2
#-1 13 14 345 -1 17 345

#a)

T1 = tuple([int(x) for x in input().split()])
T2 = tuple([int(x) for x in input().split()])

#b)

ls = [x for x in T1 if x not in T2]
print(ls)

#c)

L = [(T1[i], i) for i in range(len(T1))]
L.sort(key = lambda x:(x[0], -x[1]), reverse = True)
print(L)

#d)

L2 = list(map(lambda x: (x[0]%10, str(x[1])), L))
print(L2)
```

```
12 2 345 -1 2 3 2
-1 13 14 345 -1 17 345
[12, 2, 2, 3, 2]
[(345, 2), (12, 0), (3, 5), (2, 1), (2, 4), (2, 6), (-1, 3)]
[(5, '2'), (2, '0'), (3, '5'), (2, '1'), (2, '4'), (2, '6'), (9, '3')]
```

# Exercitiul 2

```
#subpunctul a)

f = open("date5.txt")
d = {'INMATRICULAT': {}, 'NEINMATRICULAT': {}}
ls = [x.split(", ") for x in [y.strip() for y in f.readlines()]]
for i in ls:
    cheie = max(i[1], 'INMATRICULAT', key = len)
    a = d[cheie].get(i[2], [])
    c = i[3:]
    if len(cheie) != 14:
        c.append(i[1])
    c.insert(0, i[0])
```

```
    a.append(c)
    d[cheie][i[2]] = a
print(d)
f.close()

#subpunctul b)

j = input()
for marca in d['INMATRICULAT']:
    for masina in d['INMATRICULAT'][marca]:
        if masina[-1][:2] == j or masina[-1][0] == j:
            print(masina[0], masina[-1], marca, masina[1], masina[2])

#subpunctul c)

def eliminare_numere(*s, d):
    for cheie in d.keys():
        for marca in d[cheie]:
            for masina in d[cheie][marca]:
                if masina[2] in s:
                    d[cheie][marca].remove(masina)
eliminare_numere("", d = d)
print(d)

#subpunctul d)

import re

def numar_judete(nume):
    return len(set(re.findall("[A-Z]+ ", open(nume).read())))

numar_judete("date5.txt")
```

```
{'INMATRICULAT': {'Toyota': [['UU1234AB', 'Corrola Sedan', 'albastru',
'B 125 TAE'], ['UA1234XY', 'Corrola Sedan', 'rosu', 'TR 12 ABC'],
['UA1234XZ', 'Corrola Touring Sports', 'negru', 'IS 129 ANA']],
'Volvo': [['XC1234DF', 'EX90', 'negru', 'VN 101 CPP'], ['AC12JKL6',
'S60', 'verde', 'TR 75 CPP']], 'Ford': [['PQ12KLS3', 'KA', 'gri', 'DJ
15 TEO'], ['MO1257JK', 'Puma', 'albastru', 'B 10 MIA'], ['MOASD57J',
'Kuga', 'alb', 'IS 11 CRI']]}, 'NEINMATRICULAT': {'Dacia':
[['UU1234AM', 'Duster', 'alb'], ['UU1234AM', 'Lodgy', 'alb']],
'Volvo': [['AM1234BZ', 'EX90', 'gri']]}}
B
UU1234AB B 125 TAE Toyota Corrola Sedan albastru
MO1257JK B 10 MIA Ford Puma albastru
{'INMATRICULAT': {'Toyota': [['UU1234AB', 'Corrola Sedan', 'albastru',
'B 125 TAE'], ['UA1234XY', 'Corrola Sedan', 'rosu', 'TR 12 ABC'],
['UA1234XZ', 'Corrola Touring Sports', 'negru', 'IS 129 ANA']],
'Volvo': [['XC1234DF', 'EX90', 'negru', 'VN 101 CPP'], ['AC12JKL6',
'S60', 'verde', 'TR 75 CPP']], 'Ford': [['PQ12KLS3', 'KA', 'gri', 'DJ
```

```
15 TEO'], ['MO1257JK', 'Puma', 'albastru', 'B 10 MIA'], ['MOASD57J',
'Kuga', 'alb', 'IS 11 CRI']]}, 'NEINMATRICULAT': {'Dacia':
[['UU1234AM', 'Duster', 'alb'], ['UU1234AM', 'Lodgy', 'alb']],
'Volvo': [['AM1234BZ', 'EX90', 'gri']]}}

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```