

## Exercitiul 1

```
#a)

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

#b)

s = set(T1) & set(T2)
s = sorted(list(s), reverse = True)
[print(x, end = " ") for x in s if x>=0]
print()

#c)

T = tuple([x for x in T1 if x>=0])
print(T);

#d)

print(list(zip(T1, T2)))
```

## Exercitiul 2

```
#subpunctul a)

f = open("date3.txt")
ls = [i.split(", ") for i in y.strip() for y in f.readlines()]
d = {lista[1]:{} for lista in ls}
for i in ls:
    a = d[i[1]].get(i[2], [])
    c = i[3:]
    c.insert(0, i[0])
    a.append(c)
    d[i[1]][i[2]] = a
f.close()
print(d)

#subpunctul b)

def calcul_discount(ls):
    pret = float(ls[2][:len(ls[2])-4])
    if len(ls) == 4:
        return pret - pret * int(ls[3][:len(ls[3]) - 1]) / 100
    return pret
```

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for categorie in d:
    print(f"{categorie}: ", end=" ")
    for subcategorie in d[categorie]:
        print(" ".join(min(d[categorie][subcategorie], key =
calcul_discount)))

#subpunctul c)

def adaugare_discount(lista, dictionar, d):
    for i in lista:
        for sub in dictionar[i]:
            for ls in dictionar[i][sub]:
                if len(ls) == 4:
                    ls[3] = str(d) + '%'
                else:
                    ls.append(str(d) + '%')
aduguare_discount(['bacanie'], d, 37)
print(d)

#subpunctul d)

import re
def discount_mediul(sir):
    return sum([int(x[:len(x)-1]) for x in re.findall('[0-9]+%', open(sir).read())])/len(re.findall('[0-9]+%', open(sir).read()))
print(discount_mediul("date3.txt"))

{'bacanie': {'lactate': [['12A3', 'cascaval Napolact 25g', '15.90 RON', '20%'], ['834A', 'branza cu mucegai Bavaria 150g', '15.90 RON']], 'mezeluri': [['894B', 'salam Rustika 500g', '45.90 RON', '15%']], 'mirodenii': [['98TG', 'cafea macinata Jacobs 500g', '32.99 RON'], ['67DF', 'set 10 capsule ceai verde', '16.90 RON']], 'dulciuri': [['98AF', 'baton Snickers 8x50g', '23.99 RON'], ['AJ67', 'praline cu crema de menta Midnight 200g', '16.90 RON', '10%']], 'fashion': {'incaltaminte': [['12AB', 'pantofi sport MirageSportTech', '239.00 RON', '30%'], 'imbracaminte': [['13F7', 'tricou de bumbac Puma cu imprimeu logo essential', '74.99 RON', '25%']]}}}
bacanie: 12A3 cascaval Napolact 25g 15.90 RON 20%
894B salam Rustika 500g 45.90 RON 15%
67DF set 10 capsule ceai verde 16.90 RON
AJ67 praline cu crema de menta Midnight 200g 16.90 RON 10%
fashion: 12AB pantofi sport MirageSportTech 239.00 RON 30%
13F7 tricou de bumbac Puma cu imprimeu logo essential 74.99 RON 25%
{'bacanie': {'lactate': [['12A3', 'cascaval Napolact 25g', '15.90 RON', '37%'], ['834A', 'branza cu mucegai Bavaria 150g', '15.90 RON', '37%']], 'mezeluri': [['894B', 'salam Rustika 500g', '45.90 RON', '37%']], 'mirodenii': [['98TG', 'cafea macinata Jacobs 500g', '32.99 RON', '37%'], ['67DF', 'set 10 capsule ceai verde', '16.90 RON', '37%'], 'dulciuri': [['98AF', 'baton Snickers 8x50g', '23.99 RON', '37%'], ['AJ67', 'praline cu crema de menta Midnight 200g', '16.90 RON', '37%']]}}
```

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RON', '37%]]}, 'fashion': {'incaltaminte': [['12AB', 'pantofi sport  
MirageSportTech', '239.00 RON', '30%]], 'imbracaminte': [['13F7',  
'tricou de bumbac Puma cu imprimeu logo essential', '74.99 RON',  
'25%']]}}  
20.0
```