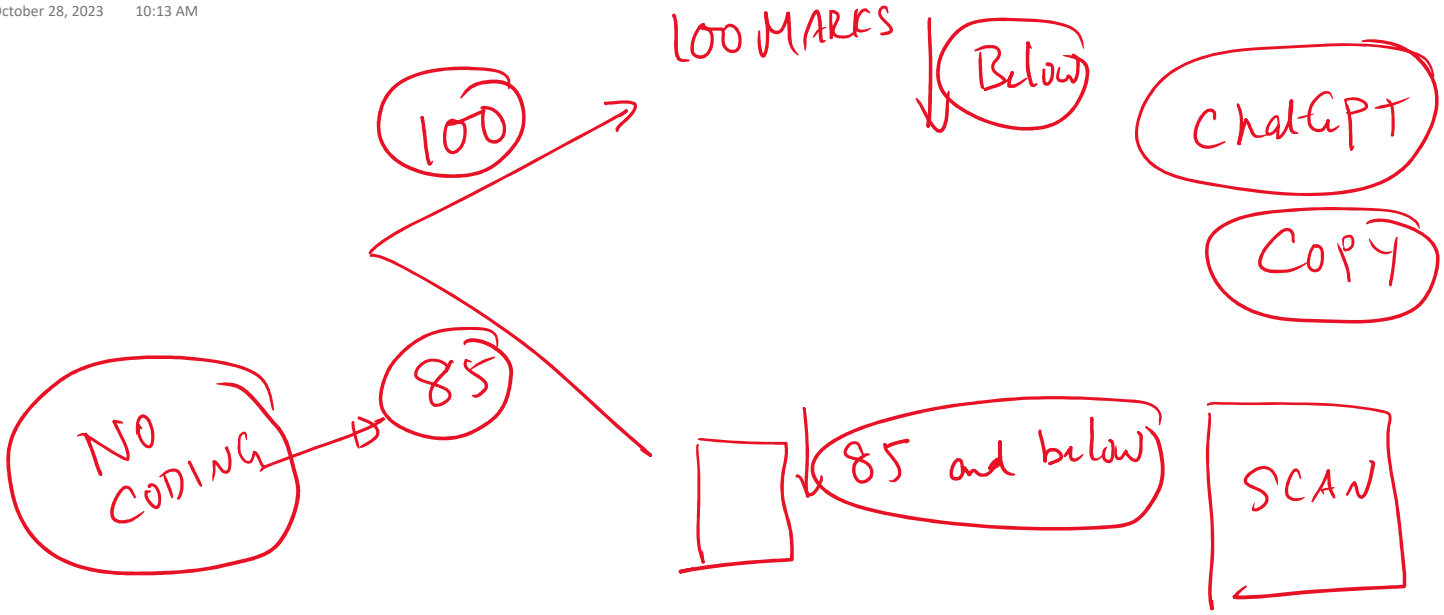
DAA 8 MIDTERM

Saturday, October 28, 2023 10:13 AM



0	1	2		n-1
30	99	80		57

All marks are >=0

If you take i you cannot take i+1

#num			
0	{}	0	
1	{80}	80	{0}
2	{50,70}	70	{1}
2	{80,50}	80	{0}
3	{50,70,100}	150	{0,2}
3	{20,100,70}	100	{1}
3	{2, 80, 91}	93	{0,2}
4	{1,2,3,4}	6	{1,3}

10

5 PM (BOSTON)

ONE SUBMISSION

WORK

for(int i=0; i<n
work++;
100 a.append()

n² works

200

work=0

n=10 100

for(int i=0; i<n²; i++){
10 work++
}

work=10
=100

10 - 10
10 - 100

O(n)

100

92 MARK CODING

OPTIMAL Solution

NO CODE

8 MARKS

{1,12,10} = 11

18

Step by step

0	1	2	3	4

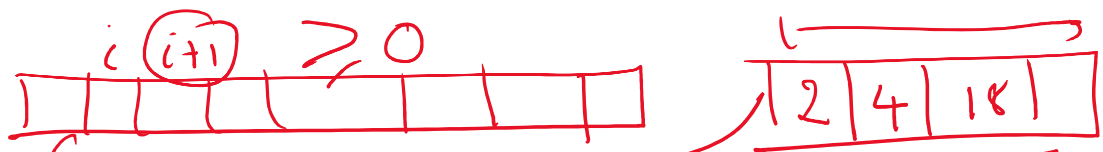
{2,7,1,8,4}

Show by hand BRUTEFORCE

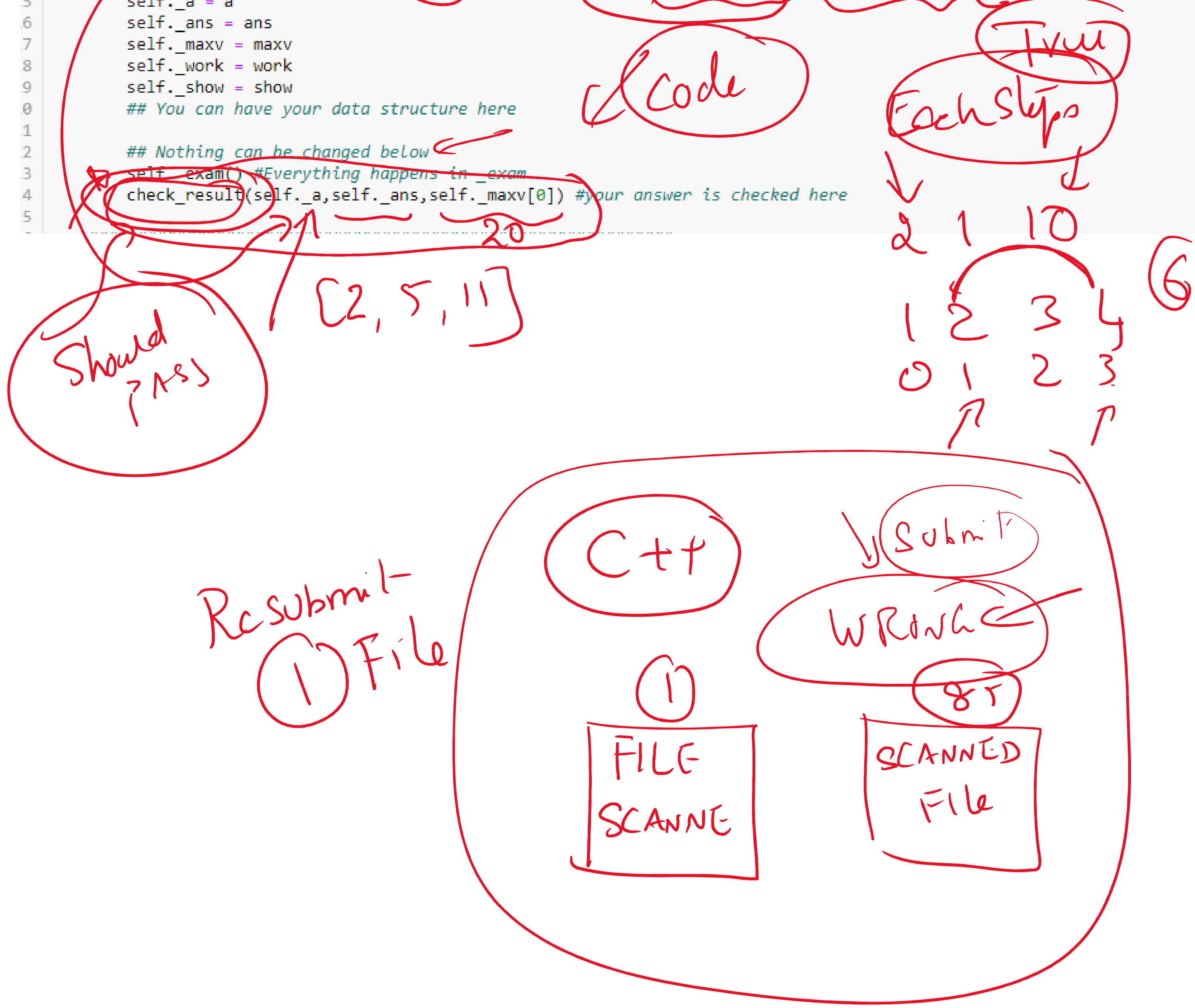
Show by hand OPTIMAL

2

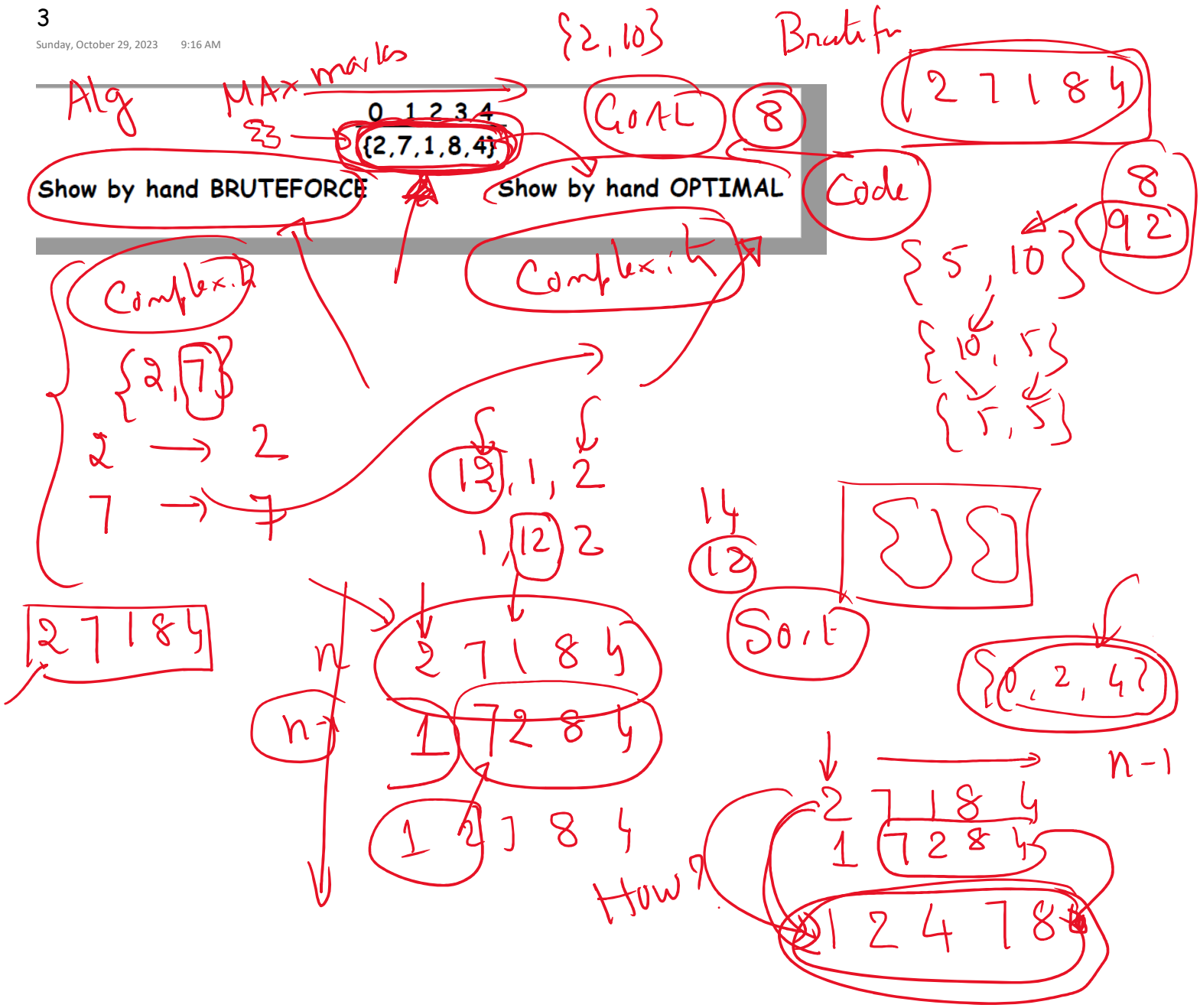
Sunday, October 29, 2023 9:11 AM



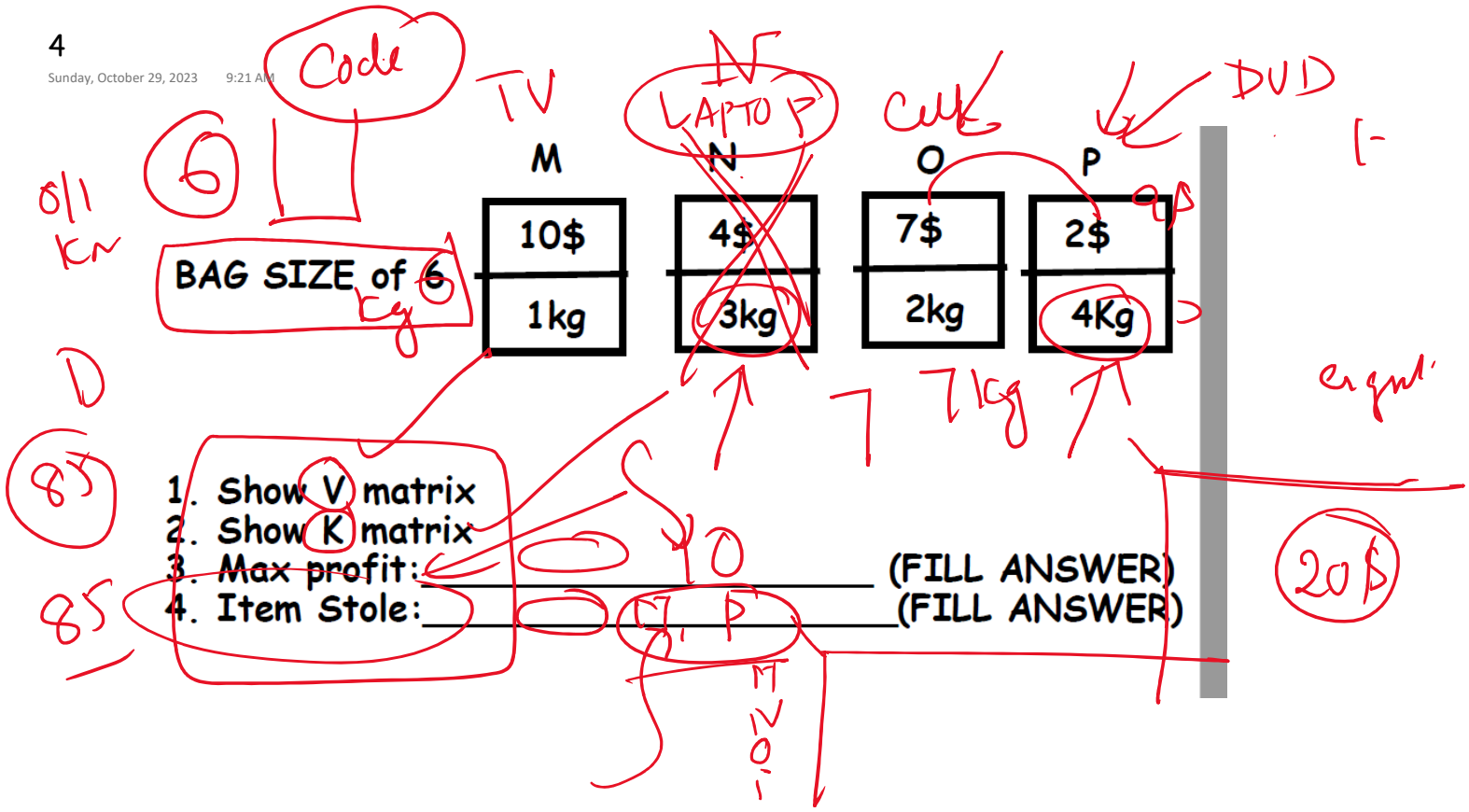

```python
#################################################################
class Alg():
    def __init__(self,a:'python list',ans:'python list',maxv:'list of size 1',work:'list of size 1',show:'bool'):
        self._a = a
        self._ans = ans
        self._maxv = maxv
        self._work = work
        self._show = show
        ## You can have your data structure here

        ## Nothing can be changed below
        self._exam() #Everything happens in _exam
        check_result(self._a,self._ans,self._maxv[0]) #your answer is checked here
```



Sunday, October 29, 2023 9:16 AM

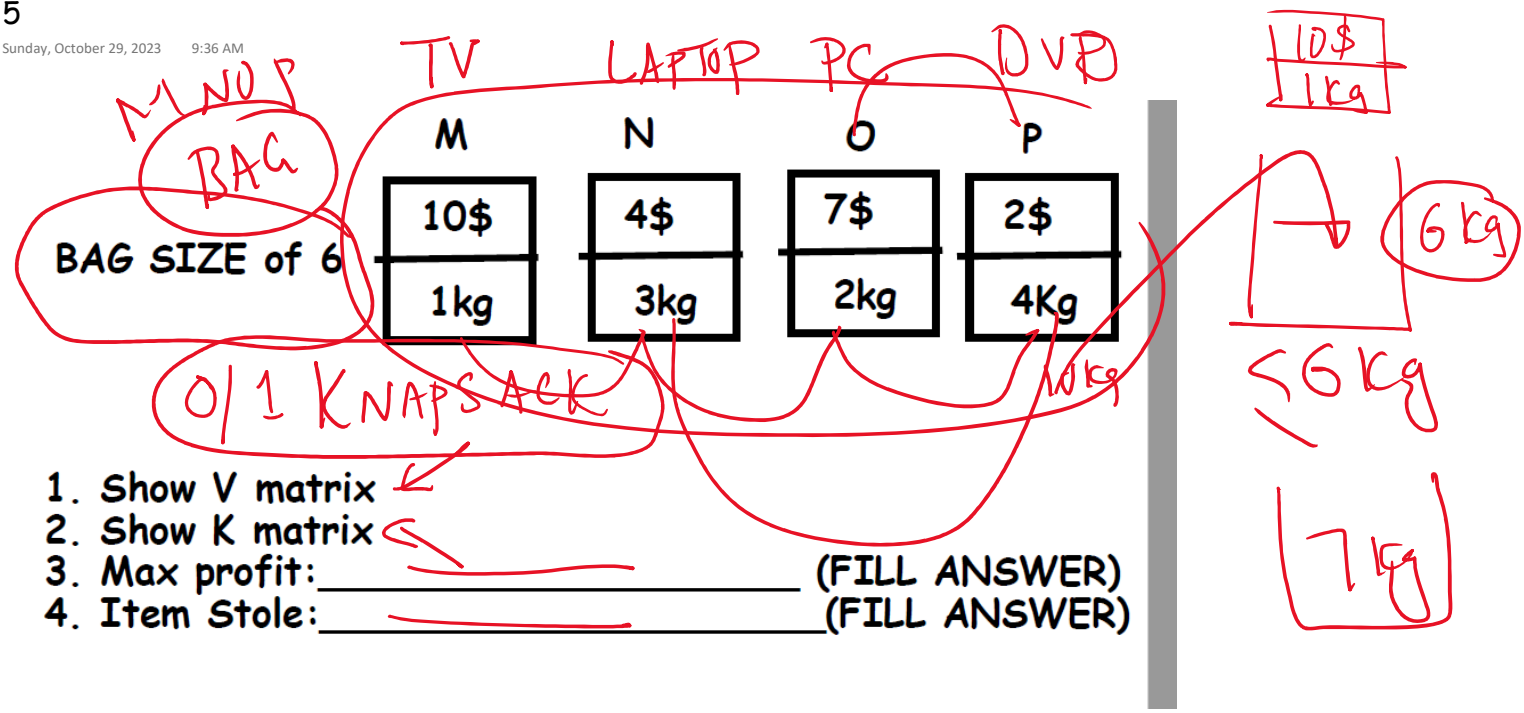


Sunday, October 29, 2023 9:21 AM



5

Sunday, October 29, 2023 9:36 AM



1. Show V matrix
2. Show K matrix
3. Max profit:_____ (FILL ANSWER)
4. Item Stole:_____(FILL ANSWER)