## Al at ACM

# AI-ACM SIG Tasks

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# TASK 1

## Category 2

1) Complete Introduction to Machine Learning course on Kaggle:

Time taken: 6 hours max

Link: https://www.kaggle.com/learn/intro-to-machine-learning

2) Hackerrank Contest:

Time taken: 5 days max

Link: www.hackerrank.com/ai-sig-contest

# TASK 2

## **Hackerrank Problems**

#### 1. COMPANY LOGO

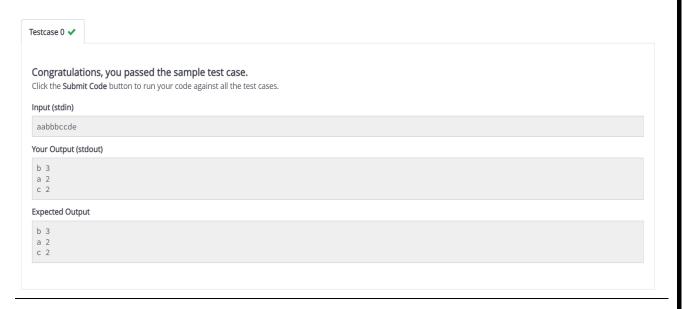
Code:

```
import math
import os
import random
import re
import sys
from collections import Counter

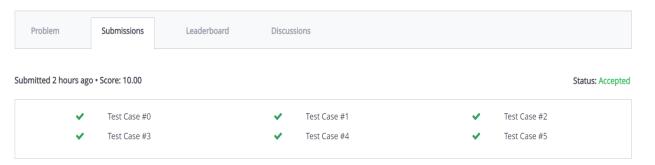
if __name__ == '__main__':
    s = input()
    s1 = sorted(s)
    counter = Counter(s1).most_common(3)

for x,y in counter:
    print(x, y)
```

## Output:



## **Company Logo**



#### 2. TIME DELTA

## Code:

#!/bin/python3

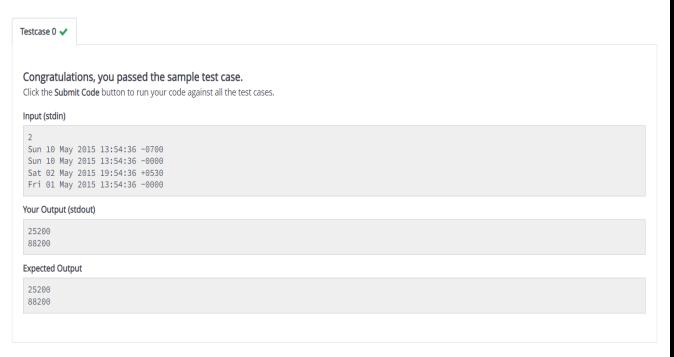
import math

import os

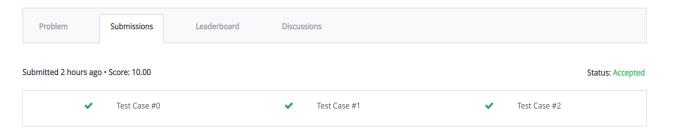
import random

```
import re
import sys
from datetime import datetime
# Complete the time_delta function below.
def time_delta(t1, t2):
  # Sun 10 May 2015 13:54:36 -0700
  # %a %d %b %Y %H:%M:%S %z
  time_form = "%a %d %b %Y %H:%M:%S %z"
  first_time = datetime.strptime(t1, time_form)
  second_time = datetime.strptime(t2, time_form)
  return str(abs(int((first time-second time).total seconds())))
if __name__ == '__main__':
  fptr = open(os.environ['OUTPUT_PATH'], 'w')
  t = int(input())
  for t_itr in range(t):
    t1 = input()
    t2 = input()
    delta = time_delta(t1, t2)
    fptr.write(delta + '\n')
  fptr.close()
```

#### Output:



## Time Delta



#### 3. NO IDEA

#### Code:

input()

happiness = 0

array = list(map(int, input().split()))

 $set\_a = set(map(int, input().split()))$ 

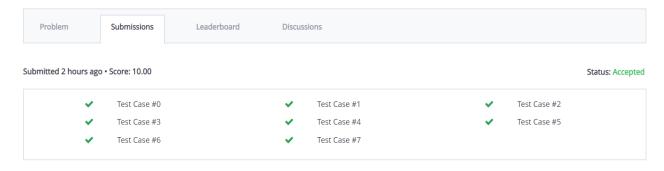
```
set_b = set(map(int, input().split()))

for i in array:
    if i in set_a:
        happiness += 1
    elif i in set_b:
        happiness -= 1
```

## Output:



#### No Idea!



## 4. TRIANGLE QUEST 2

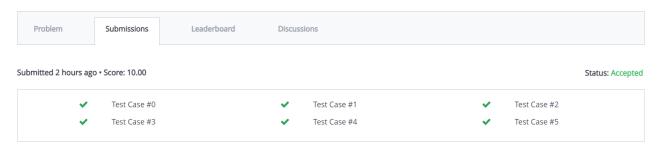
## Code:

for i in range(1,int(input())+1): print(((10\*\*i)//9)\*\*2)

## Output:



## Triangle Quest 2



#### 5. VALIDATING VREADIT CARD NUMBERS

```
Code:
import re

inpt = int(input())
for i in range(inpt):
    number = input()
    c1 = bool(re.match(r"^[456]\d{15}$", number))
    c2 = bool(re.match(r"^[456]\d{3}\-\d{4}\-\d{4}\-\d{4}\$", number))
    number = number.replace("-", "")
    c3 = bool(re.match(r"(?!.*(\d)(-?\1){3})", number))

if (c1 or c2) and c3:
    print("Valid")
    else:
    print("Invalid")
```

## Output:

```
Testcase 0 ✓

Congratulations, you passed the sample test case.

Click the Submit Code button to run your code against all the test cases.

Input (stdin)

6
41234-56789123456
51234-567-8912-3456
61234-567-8912-3456
51333-3367-8912-3456
51333-3367-8912-3456

Your Output (stdout)

Valid
Valid
Invalid
Invalid
Invalid
Invalid
Invalid
Invalid
Valid
Valid
Valid
Valid
Valid
Valid
Valid
Invalid
```

## Validating Credit Card Numbers

