

Challenge 1

Enter your code here. Read input from STDIN. Print output to STDOUT

from itertools import product

NUMBER_OF_LISTS, MODULUS = map(int, input().split())

LISTS_OF_LISTS = [list(map(int, input().split()[1:])) for _ in range(NUMBER_OF_LISTS)]

def squared(element):

return element**2

COMBS = product(*LISTS_OF_LISTS)

RESULTS = [sum(map(squared, combo)) % MODULUS for combo in COMBS]

print(max(RESULTS))

Challenge 2

regex_integer_in_range = $r"^[1-9][\d]{5}$ \$" # Do not delete 'r'.

```
import re
P = input()
print (bool(re.match(regex_integer_in_range, P))
and len(re.findall(regex_alternating_repetitive_digit_pair, P)) < 2)</pre>
Challenge 3
import math
import os
import random
import re
import sys
first_multiple_input = input().rstrip().split()
n = int(first_multiple_input[0])
m = int(first_multiple_input[1])
matrix = []
t = []
for i in range(n):
  matrix_item = [x for x in input()]
  matrix.append(matrix_item)
for i in range(m):
  for j in range(n):
    t.append(matrix[j][i])
```

 $regex_alternating_repetitive_digit_pair = r"(\d)(?=\d\1)"$ # Do not delete 'r'.

```
s = ".join(t)

path = re.compile(r'\b[!@#$%&]+\b', re.M)
k = re.sub(path, ' ', s)
print(k)
```