

ICS214

IT WORKSHOP

PRACTICE PROBLEMS

Name : K.Sathwik

Roll no : 2021bcs0026

1.

```
income = int(input())
if income <= 300000:
    tax = 0
elif income <= 500000:
    tax = (income - 300000) * 0.12
elif income <= 700000:
    tax = 24000 + (income - 500000) * 0.18
elif income <= 1000000:
    tax = 60000 + (income - 700000) * 0.24
else:
    tax = 108000 + (income - 1000000) * 0.30
print(f'{tax:.2f}')
```

2.

```
L1 = map(int, input().split())
L2 = [i for i in L1 if i % 2 == 0]
print(L2)
```

3.

```
from collections import Counter
s = input()
c = Counter(s)
for k, v in c.items():
    if k in 'aeiou':
        c[k] *= 2

for k, v in c.items():
    print(k, v)
```

4.

```
import re

pan = input()
if re.match(r'[A-Z]{5}\d{4}[A-Z]{1}', pan):
    print('Valid')
else:
    print('Invalid')
```

5.

```
string = input()
sub = input()

count = 0
for i in range(len(string)):
    if string[i] == sub[0]:
        if string[i:i+len(sub)] == sub:
            count += 1
            i += len(sub) - 1
        elif len(sub) > 1 and string[i:i+len(sub)-1] == sub[1:]:
            count += 1
            i += len(sub) - 2

print(count)
```