1.

```
 def numVowels(s):
    l=['a','e','i','o','u']
    count=0
    n=len(s)
    for i in s.lower():
        if i in l:
            count+=1
    count1=n-count
    print((count,count1))

s=input("Enter String:")
numVowels(s)
```

2.

```
def count(x):
    file = open(x)
    lines = 0
    characters = 0
    words = 0
    for l in file:
        lines = lines + 1
        for c in l:
            if c == " ":
                words = words + 1
            else:
                characters = characters + 1
    words = words + lines
    print("Lines : " + str(lines))
    print("Words : " + str(words))
    print("Characters : " + str(characters))
    file.close()

count("example.txt")
```

3.

```
def geometric(arr):
    ref=arr[1]/arr[0]
    a=0
    i=2
```

```
    while i<len(arr)-1:
        if arr[i+1]/arr[i] != ref:
            a=1
            break
        else:
            i+=1
    print(arr)
    if a==0:
        print("Yes,it is a GP")
    else:
        print("No,not a GP")

n=int(input("enter list size"))
l=[]
for i in range(n):
    l.append(int(input("Enter element")))
geometric(l)
```

4.

```
def generate_n_chars(n,ch):
    print(n*ch)
generate_n_chars(n=5,ch='c')
```

5.

```
def initials(s):
    news=s[0]
    for i in range(1,len(s)):
        if s[i].isspace():
            news+=s[i+1]
    print(news.upper())
s=input("Enter the name")
initials(s)
```

6.

```
def vowelCount(s):
    s.lower()
    ca=0
    ce=0
    ci=0
    co=0
    cu=0
```

```
    for i in s:
        if i=='a':
            ca+=1
        elif i=="e":
            ce+=1
        elif i=="i":
            ci+=1
        elif i=="o":
            co+=1
        elif i=="u":
            cu+=1
        else:
            continue
    print("a,e,i,o,u appeared",ca,ce,co,cu,"and",ci,"times respectively.")
s=input("Enter the string")
vowelCount(s)
```

7.

```
lines = []
while True:
    l = input()
    if l != "quit":
        lines.append(l)
    else:
        break
print()
x = len(lines)
for i in range(x-1, -1, -1):
    print(lines[i])
```

8.

```
class NegativeRadius(Exception):
    pass
try:
    r=float(input("Enter the radius"))
    if r<0:
        raise NegativeRadius
    else:
        area=3.14*(r**2)
        print(area," is the area of the circle")
```

```
except NegativeRadius:
    print("Radius cannot be negative!")
```

9.

```
def exclamation(s):
    s.lower()
    news=""
    l=['a','e','i','o','u']
    for i in s:
        if i in l:
            news+=4*i
        else:
            news+=i
    print(news)
s=input("Enter the string")
exclamation(s)
```

10.

```
def is_abecedarian(s):
    s.lower()
    a=0
    for i in range(len(s)-1):
        if ord(s[i])>ord(s[i+1]):
            a=1
    if a==1:
        print("False")
    else:
        print("True")
is_abecedarian("abcda")
```