

# University of Mohamed Khider

Faculty of Economics, Business and Management Sciences

Subject: Fundamentals of Programming with Python

Level: First Year – Common Core

PW4-Solution

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## Exercise 1

```
for i in range(1,21):  
    print(i**2)
```

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## Exercise 2

```
num=int(input("Enter a number: "))  
for i in range(1,num+1):  
    if i%4==0:  
        print(i)
```

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## Exercise 3

```
n = int(input("Enter a number: "))  
Total=0  
for i in range (1,n+1):  
    if n%i==0:  
        Total+=i  
print(Total)
```

#Optimized Solution

```
Total2=n  
for i in range (1,n//2+1):  
    if n%i==0:  
        Total+=i  
print(Total)
```

#using while loop

```
Total=n  
i=1  
while i<=n//2:
```

```
    if n%i==0:
        Total+=i
    i+=1
print(Total)
```

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#### Exercise 4

```
text = input("Enter a text: ")
vowels = "aeiou"
count = 0
for ch in text.lower():
    if ch in vowels:
        count+= 1
print("Number of vowels:", count)
```