

Matkul : Prak.ASD

The image shows a Windows desktop with two open Python IDE windows. The left window is a Python 3.7.2 Shell, and the right window is a file named PersegiEmpat.py (3.7.2).

**Python 3.7.2 Shell:**

```
Python 3.7.2 (tags/v3.7.2:9a3ffcc0492)
Type "help", "copyright", "credits" or
>>>
===== RESTART: D:\Ebook\Pra
@@@
@@
@
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@@@
>>>
===== RESTART: D:\Ebook\Pra
@@@
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>>>
```

**PersegiEmpat.py (3.7.2):**

```
file Edit Format Run Options Window Help
def persegi(x,y):
    for i in range(x):
        if i == 0 or i == (x-1):
            print('@'*y)
        else:
            print('@+'*(y-2)+'@')

persegi(4,5)
```

### 3. Membuat fungsi String dan mengembalikan nilai

The screenshot shows a Python 3.7.2 Shell window with two functions defined. The first function, `jumlahhurufvokal(a)`, counts the number of vowels in a string `a`. It initializes `vokal=0` and `jumlahhuruf=0`, then iterates through each character in `a`. If the character is a vowel (a, e, o, i, u, e, o), it increments `vokal` by 1. Finally, it returns `(vokal, jumlahhuruf)` and prints the result for the input "aigil". The second function, `jumlahhurufkonsonan(a)`, counts the number of consonants in a string `a`. It initializes `konsonan=0` and `jumlahhuruf=0`, then iterates through each character in `a`. If the character is a consonant (b, c, d, f, g, h, j, k, l, m, n, p, q, r, s, t, v, w, x, y, z), it increments `konsonan` by 1. Finally, it returns `(konsonan, jumlahhuruf)` and prints the result for the input "aigil".

```
def jumlahhurufvokal(a):
    v="aueoAUEO"
    vokal=0
    jumlahhuruf=0
    for i in a:
        jumlahhuruf+=1
        if i in v:
            vokal+=1
    return (vokal,jumlahhuruf)
print(jumlahhurufvokal("aigil"))

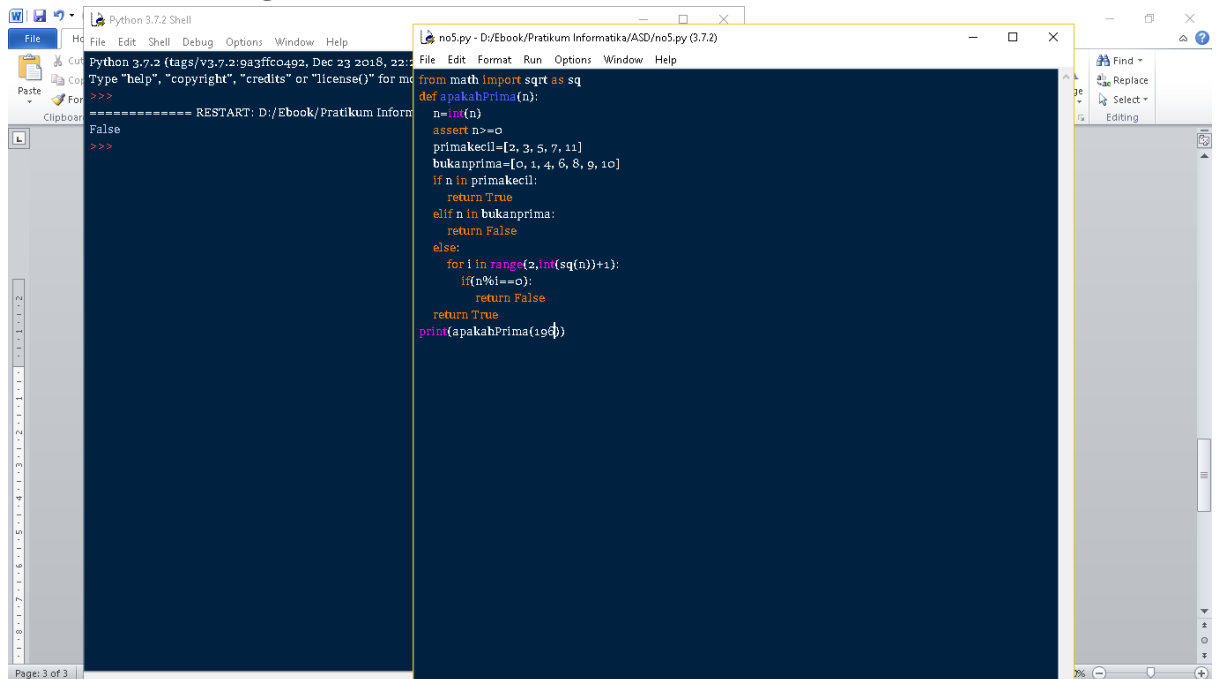
def jumlahhurufkonsonan(a):
    v="bcd fg hjklmnpqrstvwxyz"
    konsonan=0
    jumlahhuruf=0
    for i in a:
        jumlahhuruf+=1
        if i in v:
            konsonan+=1
    return (konsonan,jumlahhuruf)
print(jumlahhurufkonsonan("aigil"))
```

### 4. Menghitung rerata sebuah Array

The screenshot shows a Python 3.7.2 Shell window with a function `rerata(b=[])` defined. The function calculates the average of an array `b`. It initializes `x=0` and `n=0`. It then iterates through each element in `b`. For each element, it increments `x` by the element's value and increments `n` by 1. Finally, it returns `x/n` and prints the result for the input [1, 2].

```
def rerata(b=[]):
    x=0
    n=0
    if b != []:
        for i in b:
            x+=i
            n+=1
    return x/n
return "illegal"
print(rerata([1,2]))
```

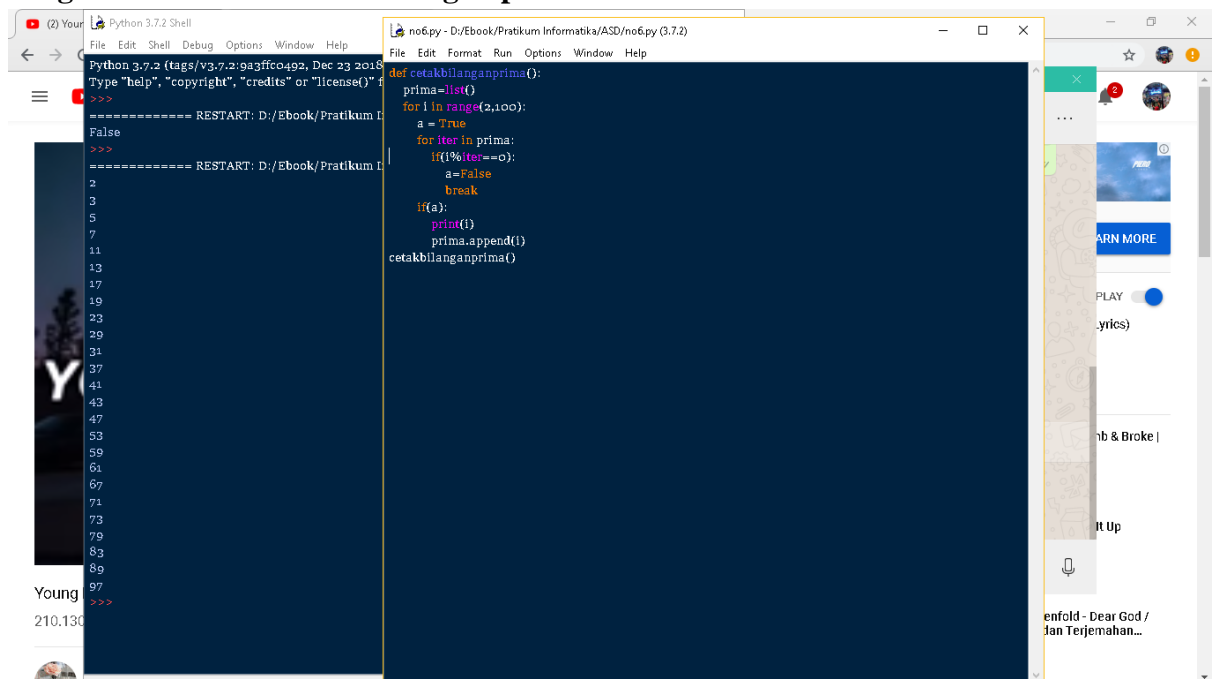
## 5. Menentukan bilangan bulat



```
Python 3.7.2 Shell
File Edit Shell Debug Options Window Help
Python 3.7.2 (tags/v3.7.2:9a3ffcc0492, Dec 23 2018, 22:21:04) [AMD64] on win32
Type "help", "copyright", "credits" or "license()" for more
>>>
===== RESTART: D:/Ebook/Pratikum Informatika/ASD/no5.py (3.7.2)
False
>>>

no5.py - D:/Ebook/Pratikum Informatika/ASD/no5.py (3.7.2)
File Edit Format Run Options Window Help
from math import sqrt as sq
def apakahPrima(n):
    n=int(n)
    assert n>=0
    primakecil=[2, 3, 5, 7, 11]
    bukanprima=[0, 1, 4, 6, 8, 9, 10]
    if n in primakecil:
        return True
    elif n in bukanprima:
        return False
    else:
        for i in range(2,int(sq(n))+1):
            if(n%i==0):
                return False
        return True
    print(apakahPrima(1963))
```

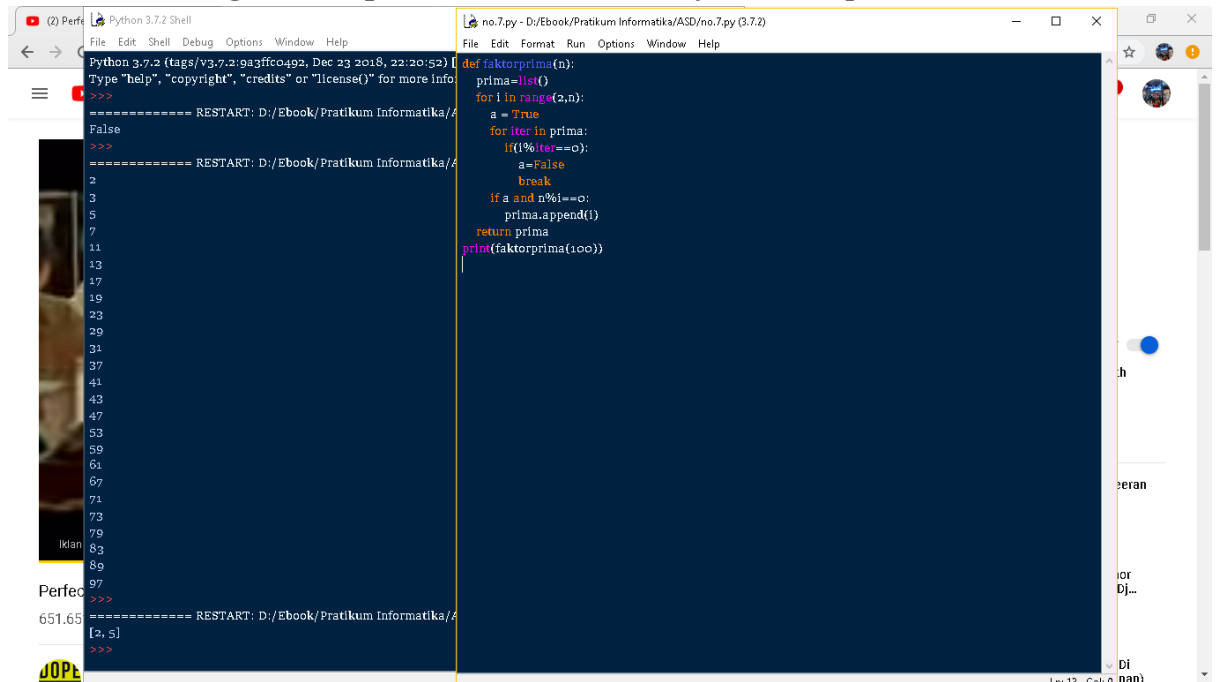
## 6. Program mencetak semua bilangan prima



```
Python 3.7.2 Shell
File Edit Shell Debug Options Window Help
Python 3.7.2 (tags/v3.7.2:9a3ffcc0492, Dec 23 2018, 22:21:04) [AMD64] on win32
Type "help", "copyright", "credits" or "license()" for more
>>>
===== RESTART: D:/Ebook/Pratikum Informatika/ASD/no6.py (3.7.2)
False
>>>
===== RESTART: D:/Ebook/Pratikum Informatika/ASD/no6.py (3.7.2)
2
3
5
7
11
13
17
19
23
29
31
37
41
43
47
53
59
61
67
71
73
79
83
89
97
>>>

no6.py - D:/Ebook/Pratikum Informatika/ASD/no6.py (3.7.2)
File Edit Format Run Options Window Help
def cetakbilanganprima():
    prima=list()
    for i in range(2,100):
        a = True
        for iter in prima:
            if(i%iter==0):
                a=False
                break
        if(a):
            print(i)
            prima.append(i)
    cetakbilanganprima()
```

## 7. Menerima bilangan bulat positif dan memberikan *faktorisasi-prima*

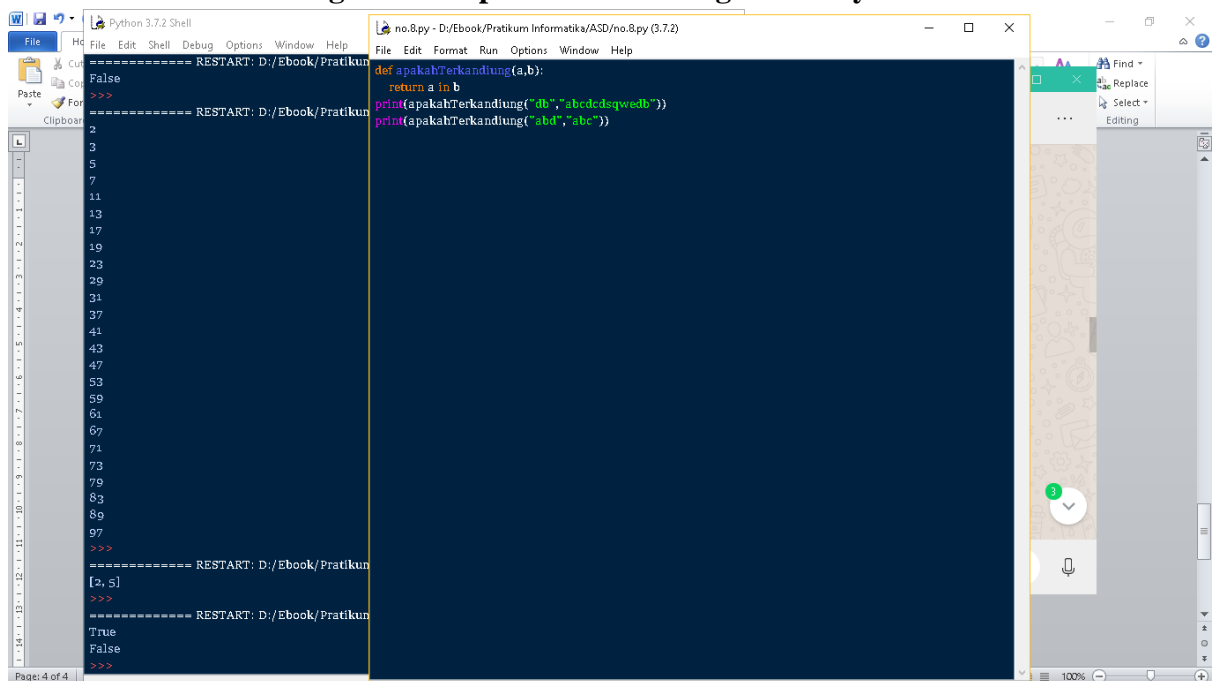


The screenshot shows a Python 3.7.2 Shell window on the left and a script editor window on the right. The shell window displays the output of a program that takes a number and prints its prime factors. The script editor window shows the code for the `faktorprima` function.

```
Python 3.7.2 Shell
File Edit Shell Debug Options Window Help
Python 3.7.2 (tags/v3.7.2:9a3ffcc0492, Dec 23 2018, 22:20:52) [AMD64] on win32
Type "help", "copyright", "credits" or "license()" for more
>>>
===== RESTART: D:/Ebook/Pratikum Informatika/ASD/no.7.py (3.7.2)
False
>>>
===== RESTART: D:/Ebook/Pratikum Informatika/ASD/no.7.py (3.7.2)
2
3
5
7
11
13
17
19
23
29
31
41
43
47
53
59
61
67
71
73
79
83
89
97
>>>
===== RESTART: D:/Ebook/Pratikum Informatika/ASD/no.7.py (3.7.2)
[2, 5]
>>>
```

```
no.7.py - D:/Ebook/Pratikum Informatika/ASD/no.7.py (3.7.2)
File Edit Format Run Options Window Help
def faktorprima(n):
    prima=list()
    for i in range(2,n):
        a = True
        for iter in prima:
            if(i%iter==0):
                a=False
                break
        if a and n%i==0:
            prima.append(i)
    return prima
print(faktorprima(100))
```

## 8. Menerima 2 buah String a dan b apakah terkandung didalamnya

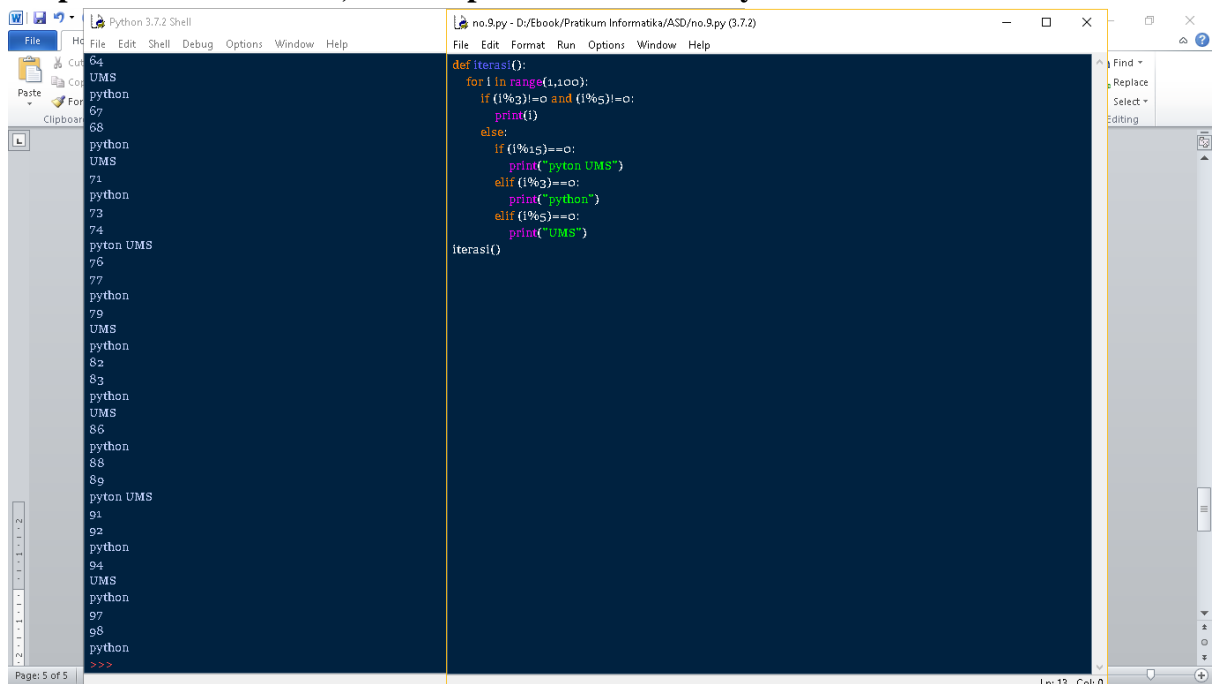


The screenshot shows a Python 3.7.2 Shell window on the left and a script editor window on the right. The shell window displays the output of a program that checks if string 'a' is contained within string 'b'. The script editor window shows the code for the `apakahTerkandung` function.

```
Python 3.7.2 Shell
File Edit Shell Debug Options Window Help
===== RESTART: D:/Ebook/Pratikum Informatika/ASD/no.8.py (3.7.2)
False
>>>
===== RESTART: D:/Ebook/Pratikum Informatika/ASD/no.8.py (3.7.2)
2
3
5
7
11
13
17
19
23
29
31
37
41
43
47
53
59
61
67
71
73
79
83
89
97
>>>
===== RESTART: D:/Ebook/Pratikum Informatika/ASD/no.8.py (3.7.2)
[2, 5]
>>>
===== RESTART: D:/Ebook/Pratikum Informatika/ASD/no.8.py (3.7.2)
True
False
>>>
```

```
no.8.py - D:/Ebook/Pratikum Informatika/ASD/no.8.py (3.7.2)
File Edit Format Run Options Window Help
def apakahTerkandung(a,b):
    return a in b
print(apakahTerkandung("db","abcdcdsqwedb"))
print(apakahTerkandung("abd","abc"))
```

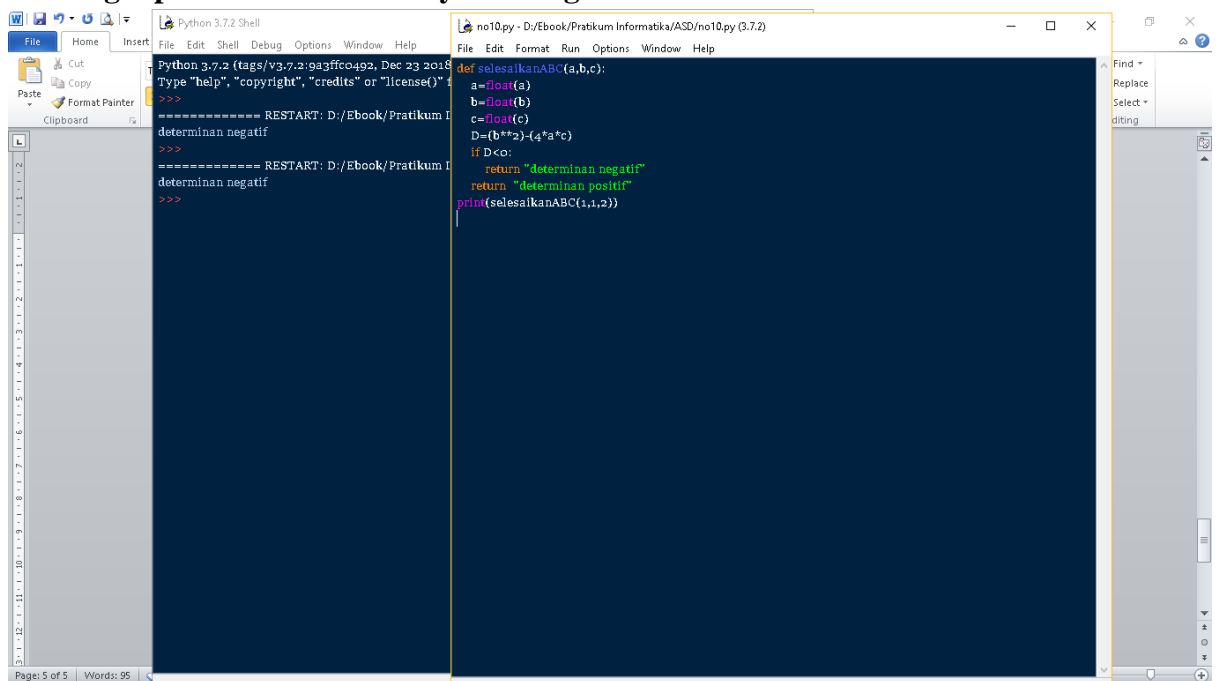
9. Membuat mencetak angka 1 sampai 100. Angka kelipatan 3 cetak 'Python', kelipatan 5 cetak 'UMS', dan kelipatan 3 ketemu 5 'Python UMS'



```
Python 3.7.2 Shell
File Edit Shell Debug Options Window Help
64
65 UMS
66 python
67
68
69 python
70 UMS
71
72 python
73
74 python UMS
75
76
77 python
78
79 UMS
80 python
81
82
83 python
84 UMS
85
86 python
87
88
89 python UMS
90
91
92 python
93
94 UMS
95 python
96
97
98 python
99
100
>>>
```

```
no.9.py - D:/Ebook/Pratikum Informatika/ASD/no.9.py (3.7.2)
File Edit Format Run Options Window Help
def iterasi():
    for i in range(1,100):
        if (i%3)!=0 and (i%5)!=0:
            print(i)
        else:
            if (i%3)==0:
                print("python UMS")
            elif (i%5)==0:
                print("python")
            elif (i%15)==0:
                print("python UMS")
    iterasi()
```

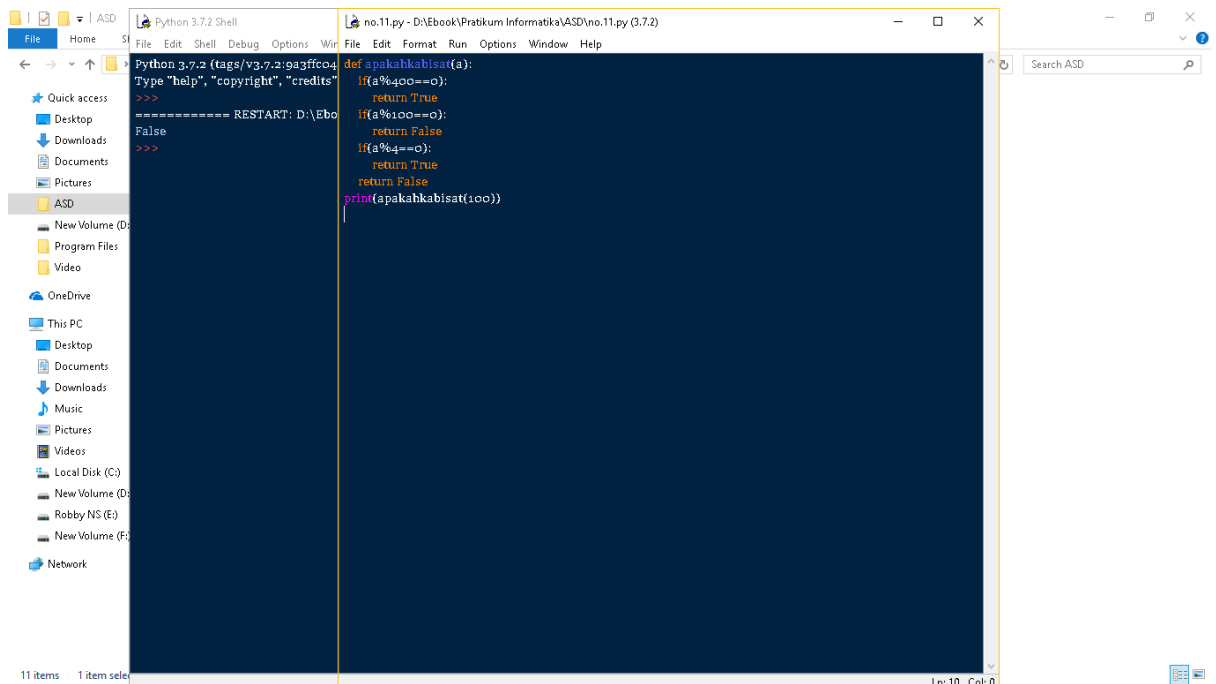
10. Menangkap kasus determinannya kurang dari 0.



```
Python 3.7.2 (tags/v3.7.2:9a3fco492, Dec 23 2018)
Type "help", "copyright", "credits" or "license()"
>>>
===== RESTART: D:/Ebook/Pratikum I
determinan negatif
>>>
===== RESTART: D:/Ebook/Pratikum I
determinan negatif
>>>
```

```
no10.py - D:/Ebook/Pratikum Informatika/ASD/no10.py (3.7.2)
File Edit Format Run Options Window Help
def selesaikanABC(a,b,c):
    a=float(a)
    b=float(b)
    c=float(c)
    D=(b**2)-(4*a*c)
    if D<0:
        return "determinan negatif"
    return "determinan positif"
print(selesaikanABC(1,1,2))
```

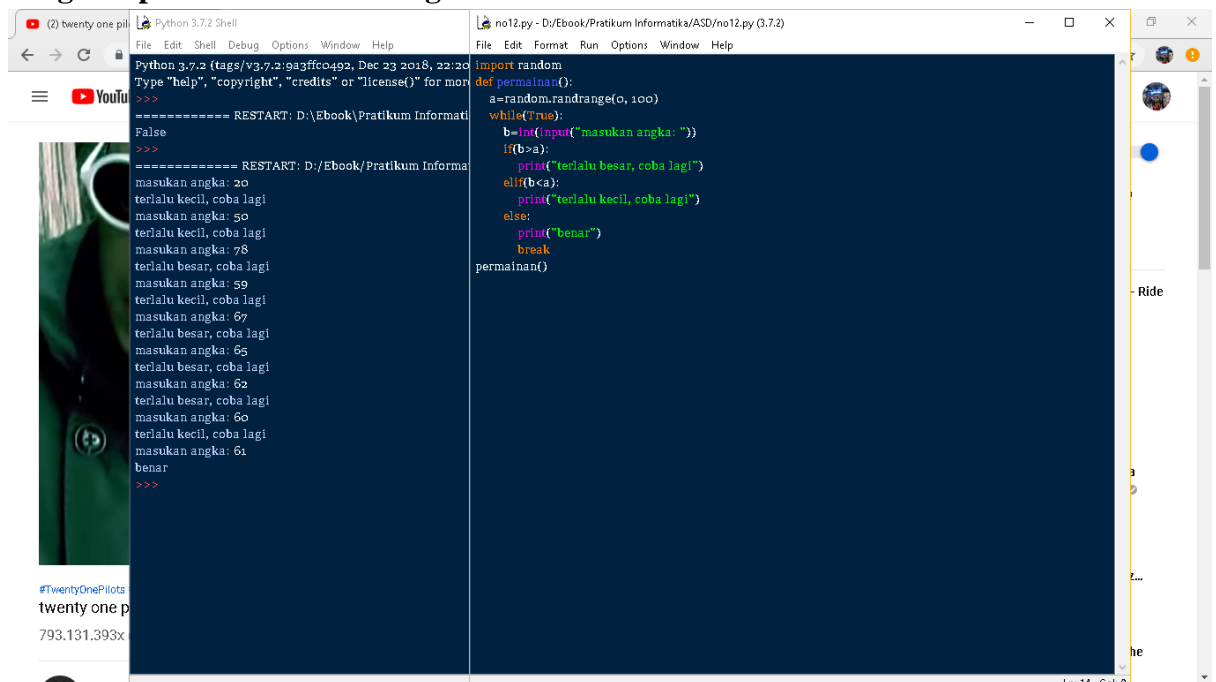
## 11. Menerima 1 angka (Tahun). Jika tahun Kabisat, kembali True dan kalau tidak maka False.



```
Python 3.7.2 Shell
File Edit Shell Debug Options Window Help
Python 3.7.2 (tags/v3.7.2:9a3ff04, Dec 23 2018, 22:20:04) [AMD64] on win32
Type "help", "copyright", "credits" or "license()" for more
>>>
===== RESTART: D:\Ebook\Pratikum Informatika\ASD\no.11.py (3.7.2)
False
>>>
```

```
no.11.py - D:\Ebook\Pratikum Informatika\ASD\no.11.py (3.7.2)
File Edit Format Run Options Window Help
def apakahkabisat(a):
    if(a%400==0):
        return True
    if(a%100==0):
        return False
    if(a%4==0):
        return True
    return False
print(apakahkabisat(100))
```

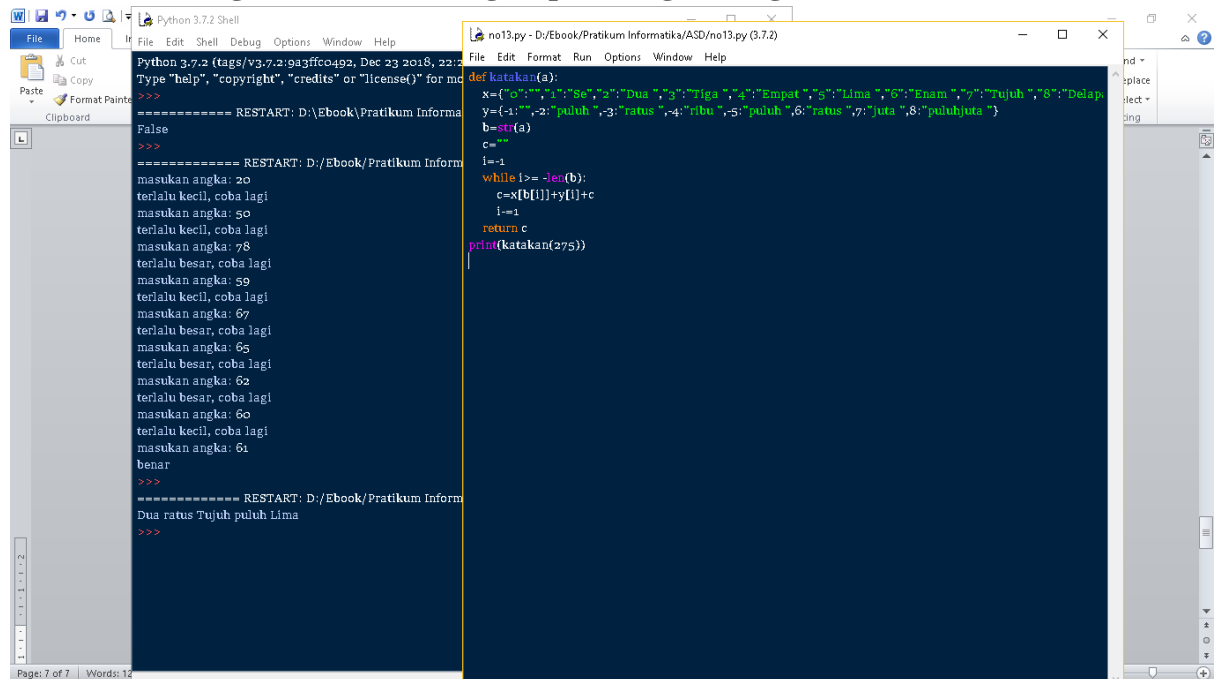
## 12. Program permainan Tebak angka.



```
Python 3.7.2 Shell
File Edit Shell Debug Options Window Help
Python 3.7.2 (tags/v3.7.2:9a3ff0492, Dec 23 2018, 22:20:04) [AMD64] on win32
Type "help", "copyright", "credits" or "license()" for more
>>>
===== RESTART: D:\Ebook\Pratikum Informatika\ASD\no12.py (3.7.2)
False
>>>
===== RESTART: D:\Ebook\Pratikum Informatika\ASD\no12.py (3.7.2)
masukan angka: 20
terlalu kecil, coba lagi
masukan angka: 50
terlalu kecil, coba lagi
masukan angka: 78
terlalu besar, coba lagi
masukan angka: 59
terlalu kecil, coba lagi
masukan angka: 67
terlalu besar, coba lagi
masukan angka: 65
terlalu besar, coba lagi
masukan angka: 62
terlalu besar, coba lagi
masukan angka: 60
terlalu kecil, coba lagi
masukan angka: 61
benar
>>>
```

```
no12.py - D:\Ebook\Pratikum Informatika\ASD\no12.py (3.7.2)
File Edit Format Run Options Window Help
import random
def permainan():
    a=random.randrange(0,100)
    while(True):
        b=int(input("masukan angka: "))
        if(b>a):
            print("terlalu besar, coba lagi")
        elif(b<a):
            print("terlalu kecil, coba lagi")
        else:
            print("benar")
            break
    permainan()
```

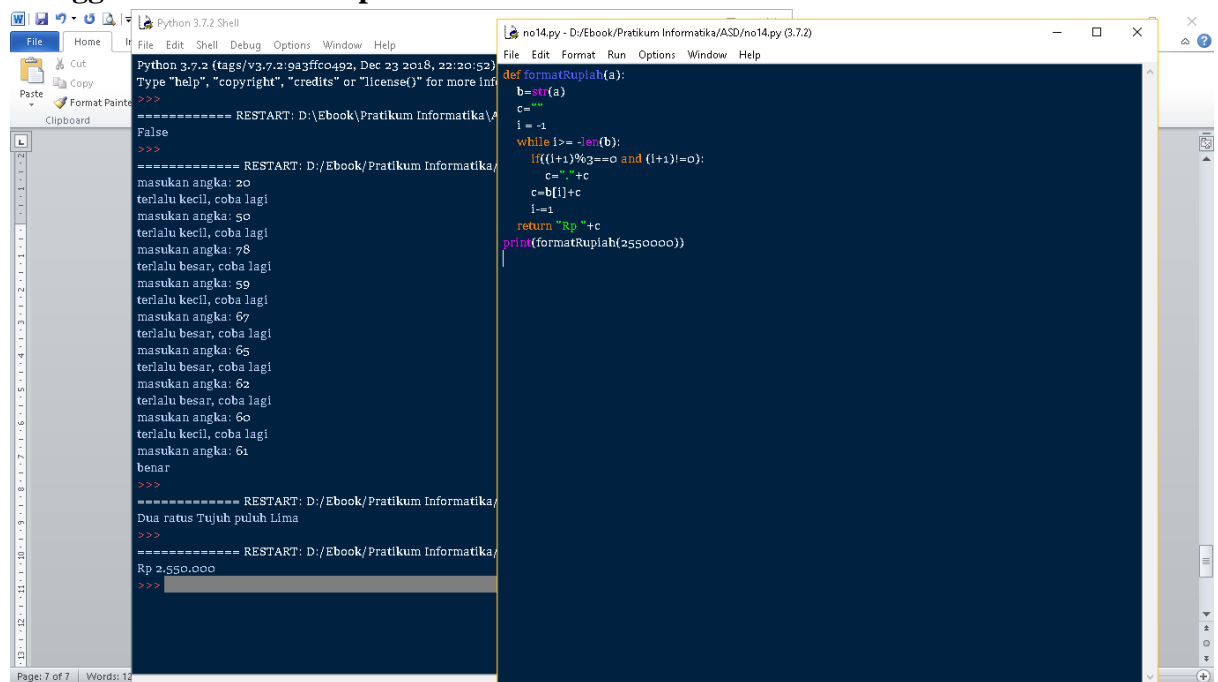
### 13. Menerima bilangan bulat dan mengucapkan angka dengan B.Indo



```
Python 3.7.2 Shell
File Edit Shell Debug Options Window Help
Python 3.7.2 (tags/v3.7.2:9a3ffco492, Dec 23 2018, 22:20:52)
Type "help", "copyright", "credits" or "license()" for more
>>>
===== RESTART: D:/Ebook/Pratikum Informatika/ASD/no13.py (3.7.2)
False
>>>
===== RESTART: D:/Ebook/Pratikum Informatika/ASD/no13.py (3.7.2)
masukan angka: 20
terlalu kecil, coba lagi
masukan angka: 50
terlalu kecil, coba lagi
masukan angka: 78
terlalu besar, coba lagi
masukan angka: 59
terlalu kecil, coba lagi
masukan angka: 67
terlalu besar, coba lagi
masukan angka: 65
terlalu besar, coba lagi
masukan angka: 62
terlalu besar, coba lagi
masukan angka: 60
terlalu kecil, coba lagi
masukan angka: 61
benar
>>>
===== RESTART: D:/Ebook/Pratikum Informatika/ASD/no13.py (3.7.2)
Dua ratus Tujuh puluh Lima
>>>
```

```
no13.py - D:/Ebook/Pratikum Informatika/ASD/no13.py (3.7.2)
File Edit Format Run Options Window Help
def katakan(a):
    x={"0":"","1":"Se",2:"Dua",3:"Tiga",4:"Empat",5:"Lima",6:"Enam",7:"Tujuh",8:"Delap",9:"Sembilan"}
    y=("-1":"","-2:"puluh",-3:"ratus",-4:"ribu",-5:"puluh",-6:"ratus",-7:"juta",-8:"puluhjuta")
    b=str(a)
    c=""
    i=-1
    while i>= -len(b):
        c=x[b[i]]+y[i]+c
        i=i-1
    return c
print(katakan(275))
```

### 14. Menggunakan format Rupiah



```
Python 3.7.2 Shell
File Edit Shell Debug Options Window Help
Python 3.7.2 (tags/v3.7.2:9a3ffco492, Dec 23 2018, 22:20:52)
Type "help", "copyright", "credits" or "license()" for more
>>>
===== RESTART: D:/Ebook/Pratikum Informatika/ASD/no14.py (3.7.2)
False
>>>
===== RESTART: D:/Ebook/Pratikum Informatika/ASD/no14.py (3.7.2)
masukan angka: 20
terlalu kecil, coba lagi
masukan angka: 50
terlalu kecil, coba lagi
masukan angka: 78
terlalu besar, coba lagi
masukan angka: 59
terlalu kecil, coba lagi
masukan angka: 67
terlalu besar, coba lagi
masukan angka: 65
terlalu besar, coba lagi
masukan angka: 62
terlalu besar, coba lagi
masukan angka: 60
terlalu kecil, coba lagi
masukan angka: 61
benar
>>>
===== RESTART: D:/Ebook/Pratikum Informatika/ASD/no14.py (3.7.2)
Dua ratus Tujuh puluh Lima
>>>
===== RESTART: D:/Ebook/Pratikum Informatika/ASD/no14.py (3.7.2)
Rp 2.550.000
>>>
```

```
no14.py - D:/Ebook/Pratikum Informatika/ASD/no14.py (3.7.2)
File Edit Format Run Options Window Help
def formatRupiah(a):
    b=str(a)
    c=""
    i = -1
    while i>= -len(b):
        if ((i+1)%3==0 and (i+1)!=0):
            c=","+c
        c=b[i]+c
        i=i-1
    return "Rp "+c
print(formatRupiah(2550000))
```