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KELAS : H / PRAKTIKUM ALGUSTRUK

## NOMER 1



nomer1.py - D:\PERKULIAHAN\SEM	Python 2.7.15 Shell
File Edit Format Run Options	File Edit Shell Debug Options Window Help
<pre>def cetakSiku(x):     for i in range(x+1):         print i * "*"</pre>	<pre>Python 2.7.15 (v2.7.15:ca079a3ea3, Apr 30 20 tel)] on win32 Type "copyright", "credits" or "license()" f &gt;&gt;&gt;     RESTART: D:\PERKULIAHAN\SEMESTER 4\PRAKTIKU nomer1.py &gt;&gt;&gt;     RESTART: D:\PERKULIAHAN\SEMESTER 4\PRAKTIKU nomer1.py &gt;&gt;&gt; cetakSiku(5)  * ** *** **** ***** &gt;&gt;&gt;  </pre>

## NOMER 2



nomer2.py - D:\PERKULIAHAN\SEMESTER 4\PRAKTIKUM AL	Python 2.7.15 Shell
File Edit Format Run Options Window Help	File Edit Shell Debug Options
<pre>def PersegiEmpat(a,b):     for i in range(a):         if i==0 or i==a-1:             print("@"*b)         else:             print("@" + " " * (b-2) + "@")</pre>	<pre>Python 2.7.15 (v2.7.15:ca079a3ea3, Apr 30 20 tel)] on win32 Type "copyright", "credits" or "license()" f &gt;&gt;&gt;     RESTART: D:\PERKULIAHAN\SEMESTER 4\PRAKTIKU nomer2.py &gt;&gt;&gt; PersegiEmpat(4,5) ***** @   @ @   @ ***** &gt;&gt;&gt;  </pre>

## NOMER 3

### Nomer 3 A

 nomer3a.py - D:\PERKULIAHAN\SEMESTER 4\...	 Python 2.7.15 Shell
File Edit Format Run Options Window Help	File Edit Shell Debug Options Window Help
<pre>def jumlahHurufVokal(hruf):     vokal= "AIUEOaiueo"     a=0     hasil=0     for i in hruf:         if i in vokal:             a += len(i)         else:             a += 0     hasil = len (hruf),a     return hasil</pre>	<pre>Python 2.7.15 (v2.7.15:ca079a3ea3, Apr 30 2018, 16:22:17) [MSC v.150032 tel)] on win32 Type "copyright", "credits" or "license()" for more information. &gt;&gt;&gt; RESTART: D:\PERKULIAHAN\SEMESTER 4\PRAKTIKUM ALGOSTRUK\L200180211_M nomer3a.py &gt;&gt;&gt; k = jumlahHurufVokal("Surakarta") &gt;&gt;&gt; k (9, 4) &gt;&gt;&gt;  </pre>

### Nomer 3 B

 nomer3b.py - D:\PERKULIAHAN\SEMESTER 4\PRAKTIKUM ALGOSTRUK\L200180211_Modul1...	
File Edit Format Run Options Window Help	
<pre>def jumlahHurufKonsonan(hruf):     konsonan = "BCDFGHJKLMNPQRSTVWXYZbcd fghjklmnpqrstvwxyz"     b = 0     hasil = 0     for i in hruf:         if i in konsonan:             b += len(i)         else:             b += 0     hasil = len (hruf), b     return hasil</pre>	
 Python 2.7.15 Shell	
File Edit Shell Debug Options Window Help	
<pre>Python 2.7.15 (v2.7.15:ca079a3ea3, Apr 30 2018, 16:22:17) [MSC v.150032 tel)] on win32 Type "copyright", "credits" or "license()" for more information. &gt;&gt;&gt; RESTART: D:\PERKULIAHAN\SEMESTER 4\PRAKTIKUM ALGOSTRUK\L200180211_M nomer3b.py &gt;&gt;&gt; k = jumlahHurufKonsonan("Surakarta") &gt;&gt;&gt; k (9, 5) &gt;&gt;&gt;  </pre>	

## NOMER 4

nomer4.py - D:\PERKULIAHAN\SEMESTER 4\PRAKTIKUM ALGORITMA	Python 2.7.15 Shell
File Edit Format Run Options Window Help	File Edit Shell Debug Options Window Help
<pre>def rerata(x):     jumlah = 0     for i in range(len(x)):         jumlah += x[i]     jumlah = jumlah/len(x)     return jumlah</pre>	<pre>Python 2.7.15 (v2.7.15:ca079a3ea3, Apr 30 tel)] on win32 Type "copyright", "credits" or "license()" &gt;&gt;&gt;     RESTART: D:\PERKULIAHAN\SEMESTER 4\PRAKTIKUM ALGORITMA nomer4.py &gt;&gt;&gt; rerata([1,2,3,4,5]) 3 &gt;&gt;&gt; g = [3,4,5,4,3,4,5,2,2,10,11,23] &gt;&gt;&gt; rerata (g) 6 &gt;&gt;&gt;  </pre>

## NOMER 5

nomer5.py - D:\PERKULIAHAN\SEMESTER 4\PRAKTIKUM ALGORITMA	Python 2.7.15 Shell
File Edit Format Run Options Window Help	File Edit Shell Debug Options Window Help
<pre>from math import sqrt as sq def apakahPrima(n):     n = int(n)     assert n &gt;= 0     primaKecil = [2,3,5,7,11]     bukanPrKecil = [0,1,4,6,8,9,10]     if n in primaKecil:         return True     elif n in bukanPrKecil:         return False     else:         for i in range(2, int(sq(n)) + 1):             if n%i==0:                 return False         return True</pre>	<pre>Python 2.7.15 (v2.7.15:ca079a3ea3, Apr 30 tel)] on win32 Type "copyright", "credits" or "license()" &gt;&gt;&gt;     RESTART: D:\PERKULIAHAN\SEMESTER 4\PRAKTIKUM ALGORITMA nomer5.py &gt;&gt;&gt; apakahPrima(17) True &gt;&gt;&gt; apakahPrima(97) True &gt;&gt;&gt; apakahPrima(123) False &gt;&gt;&gt;  </pre>

## NOMER 6

nomer6.py - D:\PERKULIAHAN\SEMESTER 4\PRAK	Python 2.7.15 Shell
File Edit Format Run Options Window Help	File Edit Shell Debug
bawah=2	Python 2.7.15 (v2.7
atas=1000	tel)] on win32
if bawah>=1 and atas>1:	Type "copyright", "
for x in range(bawah,atas):	>>>
prima=True	RESTART: D:\PERKUL
for i in range(2,x):	nomer6.py
if(x%i==0):	2
prima=False	3
if prima==True:	5
print(x)	7
else:	11
print("Bukan Bilangan Prima")	13
	17
	19
	23
	29
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## NOMER 7

nomer7.py - D:\PERKULIAHAN\SEMESTER 4\PRAKTIKU	Python 2.7.15 Shell
File Edit Format Run Options Window Help	File Edit Shell Debug Options
<pre>def faktorPrima(a):     bilanganList = []     loop=2     while loop &lt;= a:         if a%loop == 0:             a/=loop             bilanganList.append(loop)         else:             loop+=1     return bilanganList</pre>	<pre>Python 2.7.15 (v2.7.15:ca tel)] on win32 Type "copyright", "credit &gt;&gt;&gt;     RESTART: D:\PERKULIAHAN\ nomer7.py &gt;&gt;&gt; faktorPrima(10) [2, 5] &gt;&gt;&gt; faktorPrima(120) [2, 2, 2, 3, 5] &gt;&gt;&gt; faktorPrima(19) [19] &gt;&gt;&gt;  </pre>

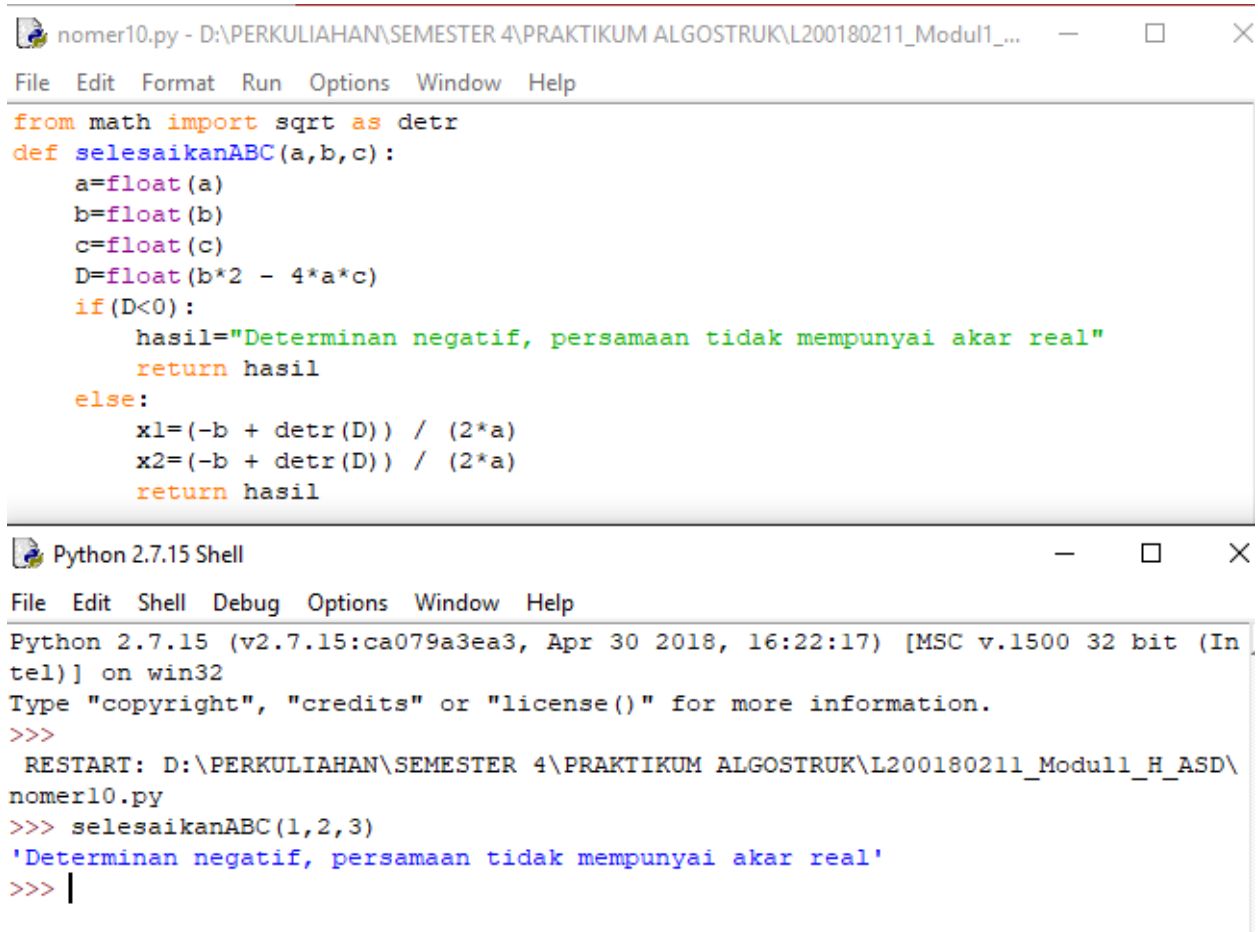
## NOMER 8

nomer8.py - D:\PERKULIAHAN\SEMESTER 4\PRAKTIKU	Python 2.7.15 Shell
File Edit Format Run Options Window Help	File Edit Shell Debug Options Window Help
<pre>def apakahTerkandung(x,y):     a=True     for i in range(len(y)):         if x in y:             a=True         else:             a=False     return a</pre>	<pre>Python 2.7.15 (v2.7.15:ca079a3ea3, Apr 30 tel)] on win32 Type "copyright", "credits" or "license() &gt;&gt;&gt;     RESTART: D:\PERKULIAHAN\SEMESTER 4\PRAKTI nomer8.py &gt;&gt;&gt; h = 'do' &gt;&gt;&gt; k = 'Indonesia tanah air beta' &gt;&gt;&gt; apakahTerkandung(h,k) True &gt;&gt;&gt; apakahTerkandung('pusaka',k) False &gt;&gt;&gt;  </pre>

## NOMER 9

nomer9.py - D:\PERKULIAHAN\SEMESTER 4\PR	Python 2.7.15 Shell
File Edit Format Run Options Window	File Edit Shell Debug C
<pre>def mencetak(a):     for i in range(a):         if(i&lt;=0):             pass         elif(i%3==0 and i%5==0):             print ("Python UMS")         elif(i%3==0):             print ("Python")         elif(i%5==0):             print ("UMS")         else :             print (i)</pre>	<pre>Python 2.7.15 (v2.7.15:8547e16f, Jul 5 2015, 00:21:26) [AMD64 (x64) on win32 Type "copyright", "credits()" or "help()" to see more help text. &gt;&gt;&gt; RESTART: D:\PERKULIAHAN\SEMESTER 4\PR&gt; python nomer9.py &gt;&gt;&gt; mencetak(101) 1 2 Python 4 UMS Python 7 8 Python UMS 11 Python 13 14 Python UMS 16 17 Python 19 UMS Python 22 23 Python UMS 26 Python 28 29 Python UMS 31 32 Python</pre>

## NOMER 10



The image shows two windows from a Python IDE. The top window, titled 'nomer10.py', contains a Python function 'selesaikanABC' that calculates the roots of a quadratic equation  $ax^2 + bx + c = 0$ . It uses the discriminant  $D = b^2 - 4ac$ . If  $D < 0$ , it returns a message that the equation has no real roots. Otherwise, it calculates two real roots,  $x_1$  and  $x_2$ . The bottom window, titled 'Python 2.7.15 Shell', shows the execution of the script. It displays the Python version and architecture, followed by the command to run 'nomer10.py'. The output shows the function being called with arguments (1, 2, 3) and returning the string 'Determinan negatif, persamaan tidak mempunyai akar real'.

```
from math import sqrt as detr
def selesaikanABC(a,b,c):
    a=float(a)
    b=float(b)
    c=float(c)
    D=float(b*2 - 4*a*c)
    if(D<0):
        hasil="Determinan negatif, persamaan tidak mempunyai akar real"
        return hasil
    else:
        x1=(-b + detr(D)) / (2*a)
        x2=(-b + detr(D)) / (2*a)
        return hasil
```

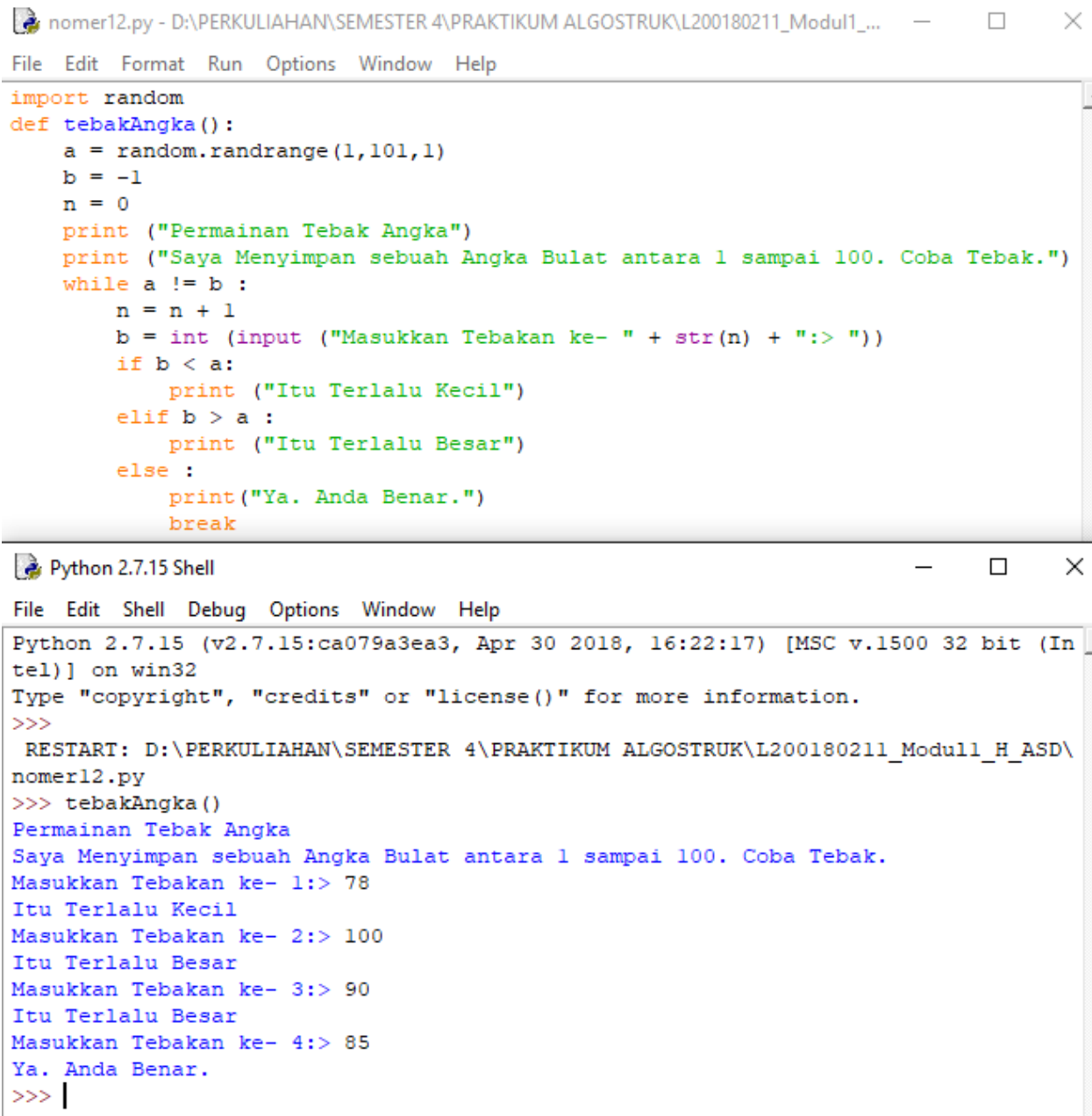
```
Python 2.7.15 Shell
File Edit Shell Debug Options Window Help
Python 2.7.15 (v2.7.15:ca079a3ea3, Apr 30 2018, 16:22:17) [MSC v.1500 32 bit (Intel)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
RESTART: D:\PERKULIAHAN\SEMESTER 4\PRAKTIKUM ALGOSTRUK\L200180211_Modul1_H_ASD\nomer10.py
>>> selesaikanABC(1,2,3)
'Determinan negatif, persamaan tidak mempunyai akar real'
>>> |
```

## NOMER 11

nomer11.py - D:\PERKULIAHAN\SEMESTER 4\PRAKTIKUM ALGOSTRUK\L200	Python 2.7.15 Shell
<pre>File Edit Format Run Options Window Help def tahunKabisat(tahun):     hasil=False     if(tahun%4==0 and tahun%100!=0 and tahun%400!=0):         hasil=True     elif(tahun%100==0 and tahun%400!=0):         hasil=False     elif(tahun%400==0):         hasil=True     else:         hasil=False     return hasil</pre>	<pre>File Edit Shell Debug Options Window Help Python 2.7.15 (v2.7.15:ca079a3ea3, Apr 10 2015) on win32 Type "copyright", "credits" or "license()" for more &gt;&gt;&gt;  RESTART: D:\PERKULIAHAN\SEMESTER 4\PRAKTIKUM ALGOSTRUK\L200&gt; &gt;&gt;&gt; tahunKabisat(1896) True &gt;&gt;&gt; tahunKabisat(1897) False &gt;&gt;&gt; tahunKabisat(1900) False &gt;&gt;&gt; tahunKabisat(2000) True &gt;&gt;&gt; tahunKabisat(2004) True &gt;&gt;&gt; tahunKabisat(2100) False &gt;&gt;&gt; tahunKabisat(2400) True &gt;&gt;&gt;  </pre>



## NOMER 12



The image shows a screenshot of a Python IDE with two windows. The top window, titled 'nomer12.py', contains a Python script for a number guessing game. The script imports the 'random' module and defines a function 'tebakAngka()' that generates a random number between 1 and 100. It then enters a loop where the user is prompted to guess the number. The program provides feedback: 'Itu Terlalu Kecil' (Too Small) if the guess is lower than the target, 'Itu Terlalu Besar' (Too Big) if higher, and 'Ya. Anda Benar.' (Yes, you are correct) when the guess matches the target. The bottom window, titled 'Python 2.7.15 Shell', shows the execution of the script. It displays the program's output, including the random number generated (78) and the user's guesses (100, 90, 85) with corresponding feedback. The execution ends with a prompt for the next command.

```
import random
def tebakAngka():
    a = random.randrange(1,101,1)
    b = -1
    n = 0
    print ("Permainan Tebak Angka")
    print ("Saya Menyimpan sebuah Angka Bulat antara 1 sampai 100. Coba Tebak.")
    while a != b :
        n = n + 1
        b = int (input ("Masukkan Tebakan ke- " + str(n) + " :> "))
        if b < a:
            print ("Itu Terlalu Kecil")
        elif b > a :
            print ("Itu Terlalu Besar")
        else :
            print ("Ya. Anda Benar.")
            break
```

```
Python 2.7.15 (v2.7.15:ca079a3ea3, Apr 30 2018, 16:22:17) [MSC v.1500 32 bit (Intel)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
RESTART: D:\PERKULIAHAN\SEMESTER 4\PRAKTIKUM ALGOSTRUK\L200180211_Modul1_H_ASD\
nomer12.py
>>> tebakAngka()
Permainan Tebak Angka
Saya Menyimpan sebuah Angka Bulat antara 1 sampai 100. Coba Tebak.
Masukkan Tebakan ke- 1:> 78
Itu Terlalu Kecil
Masukkan Tebakan ke- 2:> 100
Itu Terlalu Besar
Masukkan Tebakan ke- 3:> 90
Itu Terlalu Besar
Masukkan Tebakan ke- 4:> 85
Ya. Anda Benar.
>>> |
```

## NOMER 13

<pre>nomer13.py - D:\PERKULIAHAN\SEMESTER 4\PRAKTIKUM ALGOSTRUK\L200180211_Modul1_... File Edit Format Run Options Window Help  def katakan(bilangan):     angka=["", "Satu", "Dua", "Tiga", "Empat", "Lima", "Enam", "Tujuh",            "Delapan", "Sembilan", "Sepuluh", "Sebelas"]     Hasil = " "     n = int(bilangan)     if n&gt;=0 and n&lt;=11:         Hasil = Hasil + angka[n]     elif n&lt;20:         Hasil = katakan(n % 10) + " Belas"     elif n&lt;100:         Hasil = katakan(n / 10) + " Puluh" + katakan(n%10)     elif n&lt;200:         Hasil = " Seratus" + katakan(n-100)     elif n&lt;1000:         Hasil = katakan(n/100) + " Ratus" + katakan(n%100)     elif n&lt;2000:         Hasil = " Seribu" + katakan(n-1000)     elif n&lt;10000:         Hasil = katakan(n/1000) + " Ribu" + katakan(n%1000)     elif n&lt;20000:         Hasil = " Sepuluh Ribu" + katakan(n-10000)     elif n&lt;100000:         Hasil = katakan(n/10000) + " Puluh" + katakan(n%10000)     elif n&lt;200000:         Hasil = " Seratus Ribu" + katakan(n-100000)     elif n&lt;1000000:         Hasil = katakan(n/100000) + " Ratus" + katakan(n%100000)     elif n&lt;2000000:         Hasil = " Satu Juta" + katakan(n-1000000)     elif n&lt;10000000:         Hasil = katakan(n/1000000) + " Juta" + katakan(n%1000000)     elif n==10000000:         Hasil = "Satu Milyar" + katakan(n%10000000)     else:         Hasil = "Angka Hanya Sampai Satu Milyar"     return Hasil</pre>	<pre>Python 2.7.15 Shell File Edit Shell Debug Options Window Help  Python 2.7.15 (v2.7.15:ca079a3ea3, Apr 30 2018, 16:22:17) [MSC v.1500 : tel)] on win32 Type "copyright", "credits" or "license()" for more information. &gt;&gt;&gt; RESTART: D:\PERKULIAHAN\SEMESTER 4\PRAKTIKUM ALGOSTRUK\L200180211_Mod nomer13.py &gt;&gt;&gt; katakan(3125750) ' Tiga Juta Seratus Ribu Dua Puluh Lima Ribu Tujuh Ratus Lima Puluh ' &gt;&gt;&gt;  </pre>
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## NOMER 14

<pre>nomer14.py - D:\PERKULIAHAN\SEMESTER 4\PRAKTIKUM ALGOSTRUK\L2 File Edit Format Run Options Window Help  def formatRupiah(bilangan):     a = str(bilangan)     if len(a) &lt;= 3 :         return "Rp " + a     else :         y = a[-3:]         z = a[:-3]         return formatRupiah(z) + "." + y     print ("Rp ") + formatRupiah(z) + "." + y</pre>	<pre>Python 2.7.15 Shell File Edit Shell Debug Options Window  Python 2.7.15 (v2.7.15:ca079a3ea3 tel)] on win32 Type "copyright", "credits" or "l &gt;&gt;&gt; RESTART: D:\PERKULIAHAN\SEMESTER nomer14.py &gt;&gt;&gt; formatRupiah(1500) 'Rp 1.500' &gt;&gt;&gt; formatRupiah(2560000) 'Rp 2.560.000' &gt;&gt;&gt;  </pre>
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