

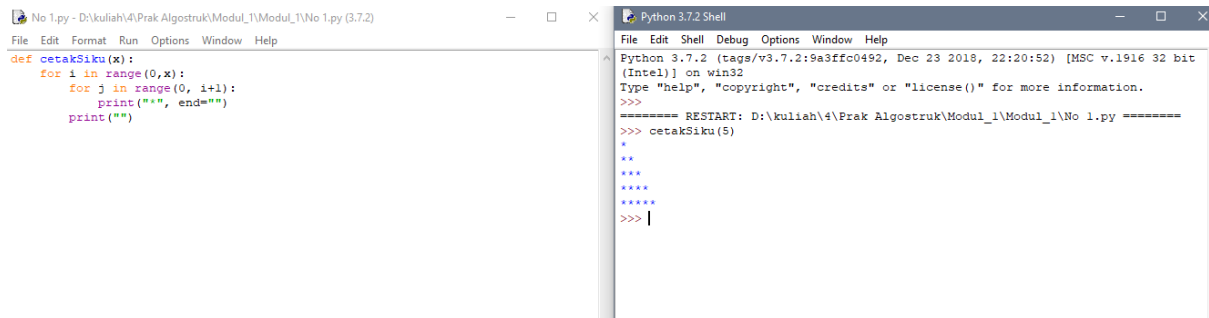
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Nim : L200180122

Kelas : E

## MODUL 1

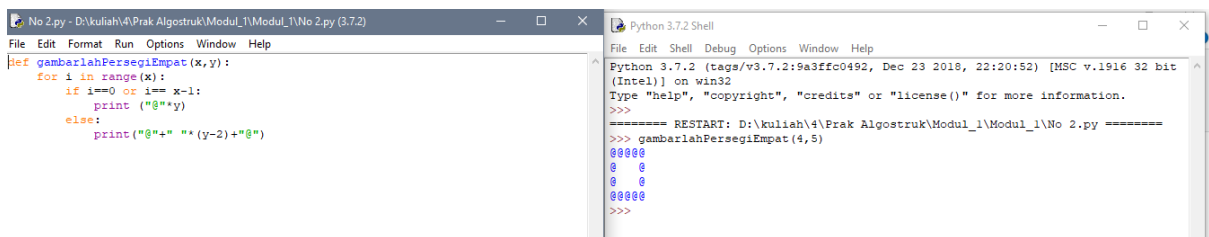
### 1.



```
No 1.py - D:\kuliah\4\Prak Algostruk\Modul_1\Modul_1\No 1.py (3.7.2)
File Edit Format Run Options Window Help
def cetakSiku(x):
    for i in range(0,x):
        for j in range(0, i+1):
            print("*", end="")
        print("")

Python 3.7.2 Shell
File Edit Shell Debug Options Window Help
Python 3.7.2 (tags/v3.7.2:9a3ffc0492, Dec 23 2018, 22:20:52) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:\kuliah\4\Prak Algostruk\Modul_1\Modul_1\No 1.py =====
>>> cetakSiku(5)
*
**
***
****
*****
>>> |
```

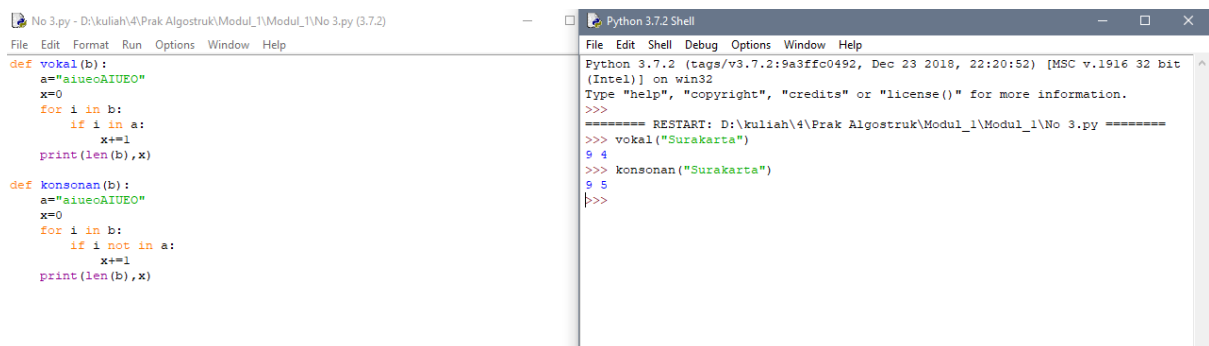
### 2.



```
No 2.py - D:\kuliah\4\Prak Algostruk\Modul_1\Modul_1\No 2.py (3.7.2)
File Edit Format Run Options Window Help
def gambarlahPersegiEmpat(x,y):
    for i in range(x):
        if i==0 or i== x-1:
            print ("@"*y)
        else:
            print("@@"+" "*(y-2)+"@")

Python 3.7.2 Shell
File Edit Shell Debug Options Window Help
Python 3.7.2 (tags/v3.7.2:9a3ffc0492, Dec 23 2018, 22:20:52) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:\kuliah\4\Prak Algostruk\Modul_1\Modul_1\No 2.py =====
>>> gambarlahPersegiEmpat(4,5)
@@@@
@ @
@ @
@@@@
>>>
```

### 3.

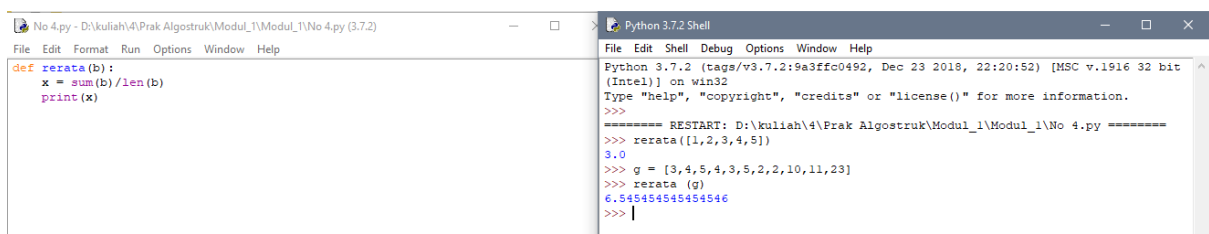


```
No 3.py - D:\kuliah\4\Prak Algostruk\Modul_1\Modul_1\No 3.py (3.7.2)
File Edit Format Run Options Window Help
def vokal(b):
    a="aiueoAIUEO"
    x=0
    for i in b:
        if i in a:
            x+=1
    print(len(b),x)

def konsonan(b):
    a="aiueoAIUEO"
    x=0
    for i in b:
        if i not in a:
            x+=1
    print(len(b),x)

Python 3.7.2 Shell
File Edit Shell Debug Options Window Help
Python 3.7.2 (tags/v3.7.2:9a3ffc0492, Dec 23 2018, 22:20:52) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:\kuliah\4\Prak Algostruk\Modul_1\Modul_1\No 3.py =====
>>> vokal("Surakarta")
9 4
>>> konsonan("Surakarta")
9 5
>>>
```

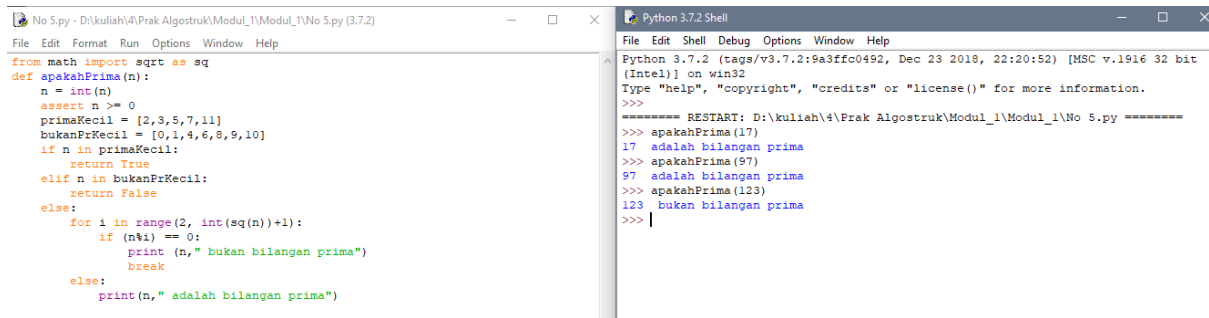
### 4.



```
No 4.py - D:\kuliah\4\Prak Algostruk\Modul_1\Modul_1\No 4.py (3.7.2)
File Edit Format Run Options Window Help
def rerata(b):
    x = sum(b)/len(b)
    print(x)

Python 3.7.2 Shell
File Edit Shell Debug Options Window Help
Python 3.7.2 (tags/v3.7.2:9a3ffc0492, Dec 23 2018, 22:20:52) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:\kuliah\4\Prak Algostruk\Modul_1\Modul_1\No 4.py =====
>>> rerata([1,2,3,4,5])
3.0
>>> g = [3,4,5,4,3,5,2,2,10,11,23]
>>> rerata(g)
6.545454545454546
>>> |
```

5.

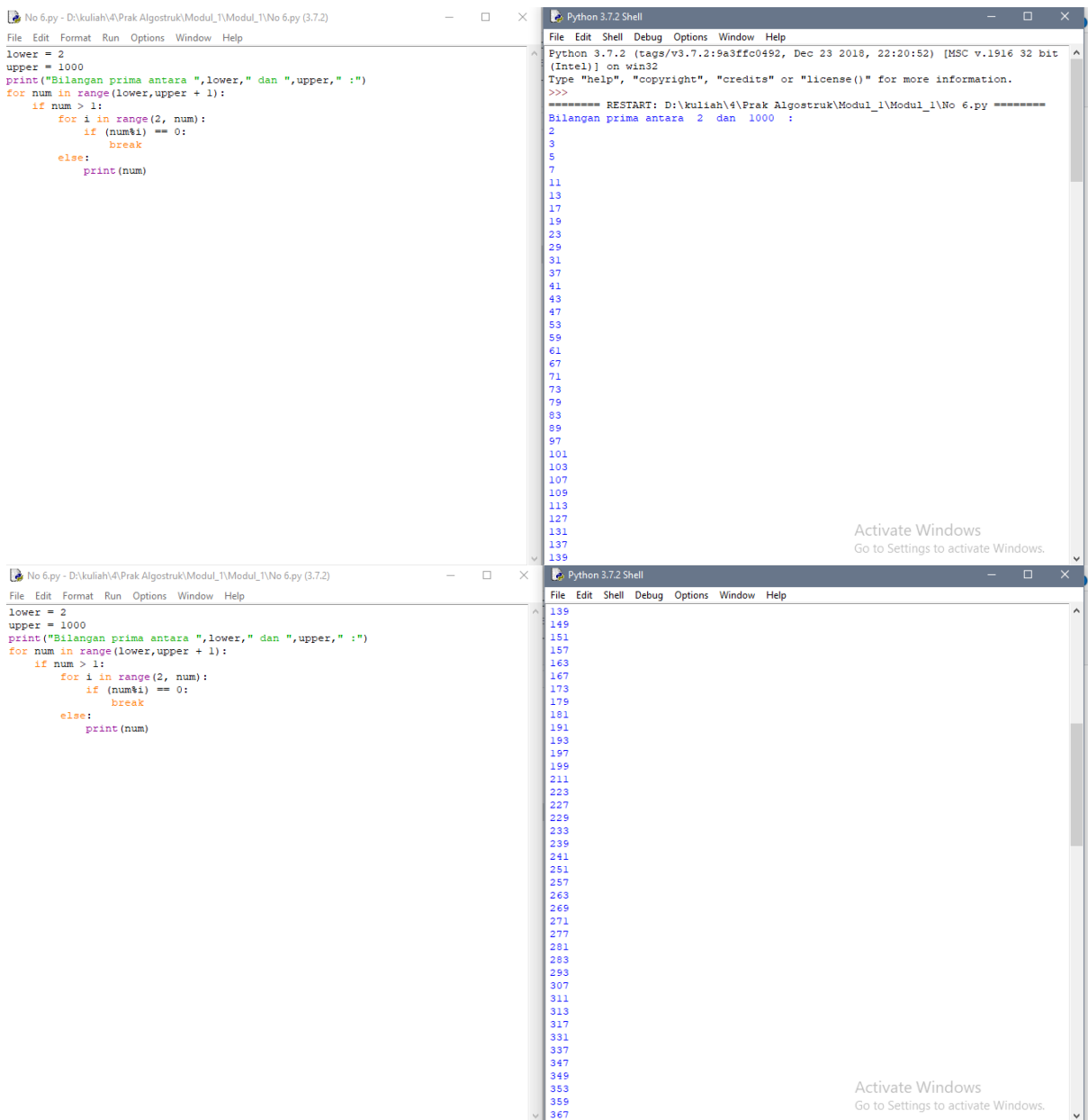


The screenshot shows a Python 3.7.2 IDE with a file named 'No 5.py'. The code defines a function `apakahPrima(n)` that checks if a number `n` is prime. It uses a list `primaKecil` for small primes and a loop for larger numbers. The shell window shows the function being called with values 17, 97, and 123, returning 'adalah bilangan prima' for the first two and 'bukan bilangan prima' for the last one.

```
from math import sqrt as sq
def apakahPrima(n):
    n = int(n)
    assert n >= 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:
                print (n," bukan bilangan prima")
                break
            else:
                print (n," adalah bilangan prima")

>>> apakahPrima(17)
17 adalah bilangan prima
>>> apakahPrima(97)
97 adalah bilangan prima
>>> apakahPrima(123)
123 bukan bilangan prima
>>>
```

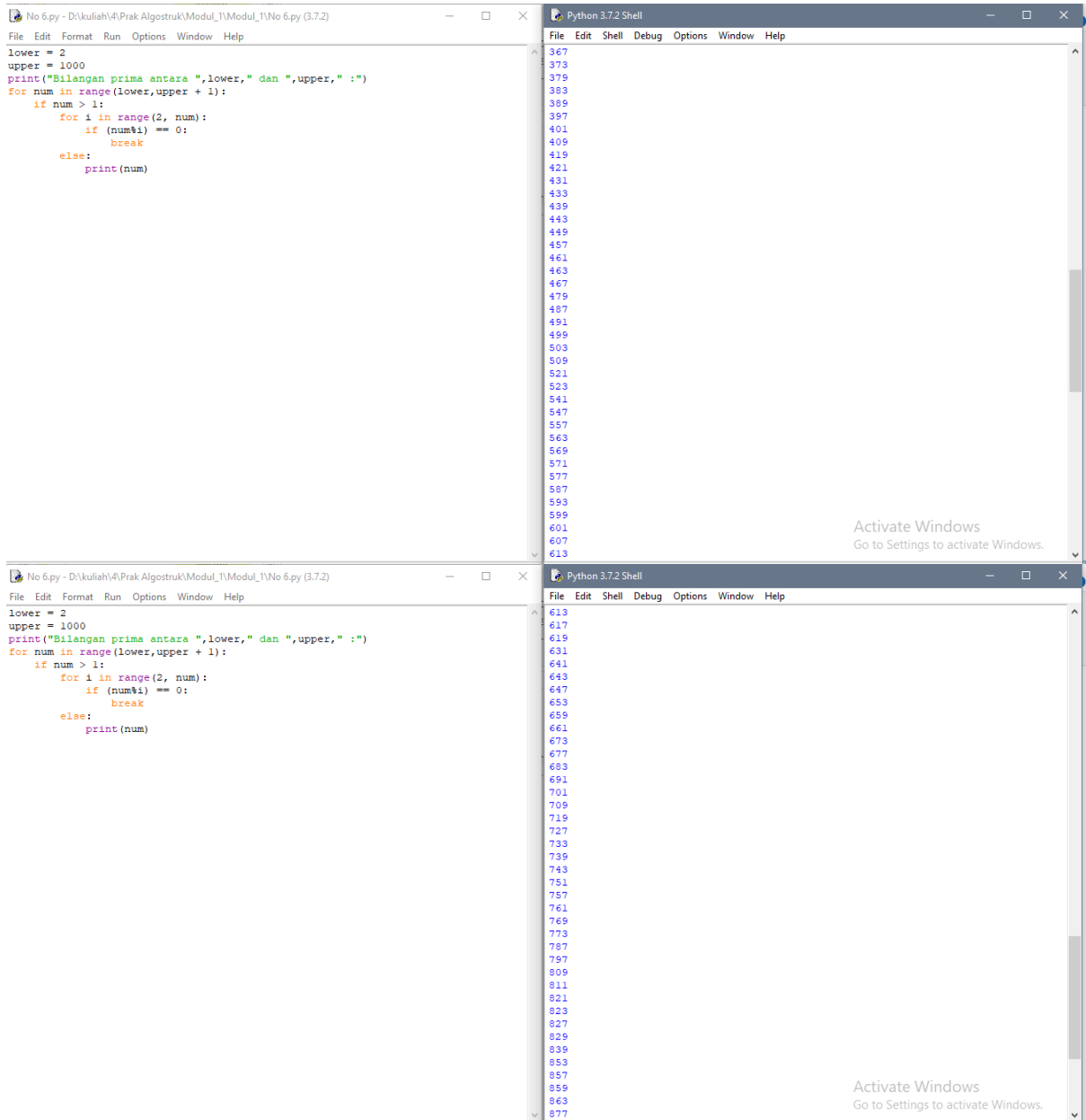
6.



The screenshot shows a Python 3.7.2 IDE with a file named 'No 6.py'. The code defines a function that finds the range of prime numbers between `lower` and `upper`. The shell window shows the function being called with `lower=2` and `upper=1000`, returning the list of primes in that range. An 'Activate Windows' watermark is visible in the bottom right corner of the shell window.

```
lower = 2
upper = 1000
print("Bilangan prima antara ",lower," dan ",upper," :")
for num in range(lower,upper + 1):
    if num > 1:
        for i in range(2, num):
            if (num%i) == 0:
                break
        else:
            print(num)

Bilangan prima antara 2 dan 1000 :
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
101
103
107
109
113
127
131
137
139
149
151
157
163
167
173
179
181
191
193
197
199
211
223
227
229
233
239
241
251
257
263
269
271
277
281
283
293
307
311
313
317
331
337
347
349
353
359
367
```



```
No 6.py - D:\kuliah\4\Prak Algotruk\Modul_1\Modul_1\No 6.py (3.7.2)
File Edit Format Run Options Window Help
lower = 2
upper = 1000
print("Bilangan prima antara ",lower," dan ",upper," :)")
for num in range(lower,upper + 1):
    if num > 1:
        for i in range(2, num):
            if (num%i) == 0:
                break
            else:
                print(num)

Python 3.7.2 Shell
File Edit Shell Debug Options Window Help
733
739
743
751
757
761
769
773
787
797
809
811
821
823
827
829
839
853
857
859
863
877
881
883
887
907
911
919
929
937
941
947
953
967
971
977
983
991
997
>>>
```

7.

```
No 7.py - D:\kuliah\4\Prak Algotruk\Modul_1\Modul_1\No 7.py (3.7.2)
File Edit Format Run Options Window Help
def faktorPrima(x):
    a = []
    b = 2
    while b <= x:
        if x%b == 0:
            x /= b
            a.append(b)
        else:
            b+=1
    print(a)

Python 3.7.2 Shell
File Edit Shell Debug Options Window Help
Python 3.7.2 (tags/v3.7.2:9a3ffc0492, Dec 23 2018, 22:20:52) [MSC v.1916 32 bit
(Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:\kuliah\4\Prak Algotruk\Modul_1\Modul_1\No 7.py =====
>>> faktorPrima(10)
[2, 5]
>>> faktorPrima(120)
[2, 2, 2, 3, 5]
>>> faktorPrima(19)
[19]
>>>
```

8.

```
No 8.py - D:\kuliah\4\Prak Algotruk\Modul_1\Modul_1\No 8.py (3.7.2)
File Edit Format Run Options Window Help
def apakahTerKandung(a,b):
    if a in b:
        print("True")
    else:
        print("False")

Python 3.7.2 Shell
File Edit Shell Debug Options Window Help
Python 3.7.2 (tags/v3.7.2:9a3ffc0492, Dec 23 2018, 22:20:52) [MSC v.1916 32 bit
(Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:\kuliah\4\Prak Algotruk\Modul_1\Modul_1\No 8.py =====
>>> h = 'do'
>>> k = 'Indonesia tanah air beta'
>>> apakahTerKandung(h,k)
True
>>> apakahTerKandung('pusaka',k)
False
>>>
```

9.

```

No 9.py - D:\kuliah\4\Prak Algostruk\Modul_1\Modul_1\No 9.py (3.7.2)
File Edit Format Run Options Window Help
for i in range(1,100):
    if ((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)

Python 3.7.2 Shell
File Edit Shell Debug Options Window Help
Python 3.7.2 (tags/v3.7.2:9a3ffc0492, Dec 23 2018, 22:20:52) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:\kuliah\4\Prak Algostruk\Modul_1\Modul_1\No 9.py =====
1
2
3 Python
4
5 UMS
6 Python
7
8
9 Python
10 UMS
11
12 Python
13
14
15 Python UMS
16
17 Python
18
19 UMS
20 Python
21
22
23 Python
24 UMS
25
26 Python
27
28
29 Python UMS
30
31
32 Python
33
34 UMS
35

```

```

No 9.py - D:\kuliah\4\Prak Algostruk\Modul_1\Modul_1\No 9.py (3.7.2)
File Edit Format Run Options Window Help
for i in range(1,100):
    if ((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)

Python 3.7.2 Shell
File Edit Shell Debug Options Window Help
61
62
63 Python
64
65 UMS
66 Python
67
68
69 Python
70 UMS
71
72 Python
73
74
75 Python UMS
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
>>>

```

10.

```

No 10.py - D:\kuliah\4\Prak Algostruk\Modul_1\Modul_1\No 10.py (3.7.2)
File Edit Format Run Options Window Help
from math import sqrt as s
def selesaikanABC(a,b,c):
    a=float(a)
    b=float(b)
    c=float(c)

    D=(b**2)-(4*a*c)
    if D>0:
        x1=(-b+s(D))/(2*a)
        x2=(-b-s(D))/(2*a)
        hasil=(x1,x2)
        print(hasil)
    else:
        print ("Determinan negatif. Persamaan tidak mempunyai akar real")

Python 3.7.2 Shell
File Edit Shell Debug Options Window Help
Python 3.7.2 (tags/v3.7.2:9a3ffc0492, Dec 23 2018, 22:20:52) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:\kuliah\4\Prak Algostruk\Modul_1\Modul_1\No 10.py =====
>>> selesaikanABC(1,2,3)
Determinan negatif. Persamaan tidak mempunyai akar real
>>>

```

11.

```

File Edit Format Run Options Window Help
def apakahKabisat(x):
    if (x % 4) == 0:
        if (x % 100) == 0:
            if (x % 400) == 0:
                print ("Tahun Kabisat")
            else:
                print ("Bukan Tahun Kabisat")
        else:
            print ("Tahun Kabisat")
    else:
        print ("Bukan Tahun Kabisat")

Python 3.7.2 Shell
Python 3.7.2 (tags/v3.7.2:9a3ffc0492, Dec 23 2018, 22:20:52) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:\kuliah\4\Prak Algotruk\Modul_1\Modul_1\No 11.py =====
>>> apakahKabisat(80)
Tahun Kabisat
>>> apakahKabisat(30)
Bukan Tahun Kabisat
>>>

```

12.

```

File Edit Format Run Options Window Help
from random import *
x = randint(1, 100)
print("Permainan tebak angka.")
print("Saya menyimpan sebuah angka bulat antara 1 sampai 100. Coba tebak")
while True:
    a = int(input("Masukan tebakan:>"))
    if a < x:
        print("tebakan anda terlalu kecil. Coba lagi")
    elif a > x:
        print("tebakan anda terlalu besar. Coba lagi")
    else:
        print("tebakan anda benar")
        break

Python 3.7.2 Shell
Python 3.7.2 (tags/v3.7.2:9a3ffc0492, Dec 23 2018, 22:20:52) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:\kuliah\4\Prak Algotruk\Modul_1\Modul_1\No 12.py =====
Permainan tebak angka.
Saya menyimpan sebuah angka bulat antara 1 sampai 100. Coba tebak
Masukan tebakan:>50
tebakan anda terlalu kecil. Coba lagi
Masukan tebakan:>75
tebakan anda terlalu besar. Coba lagi
Masukan tebakan:>58
tebakan anda terlalu besar. Coba lagi
Masukan tebakan:>98
tebakan anda terlalu besar. Coba lagi
Masukan tebakan:>67
tebakan anda terlalu besar. Coba lagi
Masukan tebakan:>55
tebakan anda terlalu besar. Coba lagi
Masukan tebakan:>45
tebakan anda terlalu kecil. Coba lagi
Masukan tebakan:>47
tebakan anda terlalu kecil. Coba lagi
Masukan tebakan:>48
tebakan anda terlalu kecil. Coba lagi
Masukan tebakan:>49
tebakan anda terlalu kecil. Coba lagi
Masukan tebakan:>50
tebakan anda terlalu kecil. Coba lagi
Masukan tebakan:>52
tebakan anda terlalu kecil. Coba lagi
Masukan tebakan:>54
tebakan anda benar
>>>

```

13.

```

File Edit Format Run Options Window Help
def katakan(a):
    angka = ("","Satu","Dua","Tiga","Empat","Lima","Enam","Tujuh","Delapan","Sembilan","Sepuluh","Sebelas")
    hasil = ""
    n = int(a)
    if n >= 0 and n <= 11:
        hasil = angka[n]
    elif n < 20:
        hasil = angka[(n%10)]+" Belas"
    elif n < 100:
        hasil = katakan(n/10)+" Puluh "+katakan(n%10)
    elif n < 200:
        hasil = "Seratus "+katakan(n-100)
    elif n < 1000:
        hasil = katakan(n/100)+" Ratus "+katakan(n%100)
    elif n < 2000:
        hasil = "Seribu "+katakan(n-1000)
    elif n < 1000000:
        hasil = katakan(n/1000)+" Ribu "+katakan(n%1000)
    elif n < 1000000000:
        hasil = katakan(n/1000000)+" Juta "+katakan(n%1000000)
    return hasil

Python 3.7.2 Shell
Python 3.7.2 (tags/v3.7.2:9a3ffc0492, Dec 23 2018, 22:20:52) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:\kuliah\4\Prak Algotruk\Modul_1\Modul_1\No 13.py =====
>>> katakan(31255750)
'Tiga Puluh Satu Juta Dua Ratus Lima Puluh Lima Ribu Tujuh Ratus Lima Puluh '
>>>

```

14.

```

File Edit Format Run Options Window Help
def formatRupiah(x):
    a = str(x)
    b = ""
    i = -1
    while i >= -len(a):
        if ((i+1)%3 == 0 and (i+1) != 0):
            b = "." + b
        b = a[i] + b
        i -= 1
    return "Rp "+b

Python 3.7.2 Shell
Python 3.7.2 (tags/v3.7.2:9a3ffc0492, Dec 23 2018, 22:20:52) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:\kuliah\4\Prak Algotruk\Modul_1\Modul_1\No 14.py =====
>>> formatRupiah(1500)
'Rp 1.500'
>>> formatRupiah(2560000)
'Rp 2.560.000'
>>>

```