파이썬 과학프로그래밍 기초 [03] week 9 빅데이터전공 20175328 이정민

```
import math
print(math.sin(45))
print(math.sin(math.radians(45)))
deg = 45
rad = (deg/180) * math.PI
print(math.sin(rad))
```

34.

```
lt =[(1,'a'), (2,'b'), (3,'c'), (4,'d')];
for i,j in lt:
        print(j)
for i in lt:
        print(i[1])
```

35.

```
for kk in range(101):
    if kk%2==0:
        print(kk)
        lt2.append(kk)
print(lt2)
print(sum(lt2))
```

= lt2=[kk for kk in range(101) if kk%2==0] 도같음.

36.

```
pt=[(3,5), (1,-1), (8,9)]
xx=[]; yy=[]
 for kk in pt:
    xx.append(kk[0])
    yy.append(kk[1])
```

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37.

```
def mysum(var):
 hap=0
 for kk in range(var[0], var[1]):
     if kk %var[2]==0
           hap +=kk
     return hap
Print(mysum((1,101,2))
```

38.

```
def Calcoin(money):
  C500 = money
  C100 =(money - 500*(500))
  C50 = (money - 500*(500 -100*C100)
  return (C500, C100, C50)
Print (Calcoin(7870))
```

40.

```
import math
def Polar2Cart(var):
   xxx = math.cos(math.radians(var['theta']))*var['rrr']
   yyy = math.sin(math.radians(var['theta']))*var['rrr']
Pt1 = ('rrr':10, 'theta':60)
Print(Pt1, Polar2Cart(Pt1))
```

39. import math

```
  def Car2Polar(var):
     xxx = math.cos(math.radians(var[0]))*var[1]
     yyy = math.sin(math.radians[var[0]))*var[1]
     return (xxx, yyy)
  Pt1 = (60, 10)
  Print (Pt1, Car2Polar(Pt1))
```

41.

```
   import math
   def CalCylinderArea(rr.hh):
       CA = math.pi * math.pow(rr,2)
       CR = 2* math.pi *rr
       RA = CR * hh
       return 2* CA +RA.
  area= CalCylinderArea(10,4)
  Print(area)
```