kel

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Use the "Run" button to execute the code.

```
[5]: print('Hello World')
     Hello World
 [8]: def loan_emi(amount):
          emi=amount/12
          print("loan amount per month is $ {}".format(emi))
[15]: loan_emi(1200000,5)
     loan amount per month is $ 240000.0
[10]: def loan_emi(amount, duration): # define a function which has local variables_
       \rightarrow others are global
          emi=amount/duration
          print("loan amount per month is $ {}".format(emi))
[12]: loan_emi(1200000,12)
     loan amount per month is $ 100000.0
[98]: def loan_emi(amount,duration):
          emi=amount/duration
          return(emi)
[99]: emi1=loan_emi(1260000*1.1,12)
      emi2=loan_emi(1260000*1.08,12)
      print(emi1)
      print(emi2)
      if emi1>emi2:
          print("emi2 is better than emi1 and amount is{}".format(emi2))
      if emi1<emi2:</pre>
           print("emi1 is better than emi2 and amount is{}".format(emi1))
```

```
115500.0
     113400.0
     emi2 is better than emi1 and amount is113400.0
[95]: def loan_emis(amount,duration,downpayment=0):
          emis=(amount-downpayment)/duration
          print("loan amount per month is ${}".format(emis))
          math.ceil(emis)
          return(emis)
[96]: emia=loan_emis(1200000*1.1,8,300000)
      emib=loan_emis(1200000*1.08,12)
      print(emia)
      print(emib)
     loan amount per month is $127500.0
     loan amount per month is $108000.0
     127500.0
     108000.0
[60]: def loan_paid(loan_amount,rate,time,downpayment=0):
          loan_amount=amount-downpayment
          emi =loan amount*rate*((1+rate)**time)/(((1+rate)**time)-1)
          return(emi)
[61]: b=loan_paid(1260000,0.1/12,10*12,300000)
      print(b)
      a=loan_paid(1260000,0.1/12,10*12)
      print(a)
     11893.566319358573
     15858.088425811431
[54]: a=loan_emi(1260000,0.1/12,10*12)
      print(a)
     16650.992847102003
[88]: def loan_paid(amount,loan_amount,rate,time,downpayment=0):
          loan_amount=amount-downpayment
          loan_paid =loan_amount*rate*((1+rate)**time)/(((1+rate)**time)-1)
      io=loan_paid(
             amount=1260000,
             loan_amount=amount-0,
             time=10*12,
             rate=0.1/12,
             downpayment=0
      )
```

```
[89]: print(io)
      None
[94]: import math
       help(math.ceil)
       math.ceil(1.2)
      Help on built-in function ceil in module math:
      ceil(x, /)
          Return the ceiling of x as an Integral.
          This is the smallest integer >= x.
[94]: 2
[142]: cost=800000
       loan_amount=cost-downpayment
       duration=6*12
       rate=0.07/12
       downpayment=0.25*800000
       def loan_emi(loan_amount, rate, duration, downpayment):
           loan_amount=cost-downpayment
           emi =loan_amount*rate*((1+rate)**duration)/(((1+rate)**duration)-1)
           math.ceil(n)
           return(emi)
[143]: n=loan_emi(loan_amount,rate,duration,downpayment)
       print(math.ceil(n))
      10230
[152]: price=60000
       rate=0.12/12
       duration=1*12
       def car_emi(price,duration,rate):
           emi =price*rate*((1+rate)**duration)/(((1+rate)**duration)-1)
           return(emi)
[153]: y=car_emi(price,duration,rate)
       print(math.ceil(y))
      5331
[135]: math.ceil(1.2)
```

```
[135]: 2
[173]: total=100000
       rate=0.09/12
       duration=10*12
       def loan_emi(amount, rate, duration):
           emi =total*rate*((1+rate)**duration)/(((1+rate)**duration)-1)
           return(emi)
[174]: with_interest=loan_emi(amount,rate,duration)
       print(math.ceil(with_interest))
      1267
[164]: g=100000/(10*12)
[172]: print(math.ceil(g))
      834
[176]: print(math.ceil((with_interest-g)*10))
      4335
[184]: try:
           print("computing the result") #used when error is involved
           h=6/0
           print(h)
           print("computation was successful")
       except ZeroDivisionError:
           print("failed to compute")
           result=None
           print(result)
      computing the result
      failed to compute
      None
[202]: price=100000
       rate=0.0/12
       duration=10*12
       def car_emi(price,duration,rate):
           try:
               emi=price*rate*((1+rate)**duration)/(((1+rate)**duration)-1)
           except ZeroDivisionError:
                 emi=price/duration
           return(emi)
```

```
[204]: d=car_emi(price,duration,rate)
    print(math.ceil(d))

834
[205]: print(math.ceil((with_interest-d)*10))

4335
[]:
```