

```
1 import math
2 from math import *
3
4
5 print ("Name: Abdullah Ahmad UIN: 927009064 Section: 518")
6 print ("I was born in Pakistan")
7 print (20 * 5) # OHMS LAW
8 print (((100)*(21**2))/2) # KINETIC ENERGY
9 print ((100*2.5)/1.2) # REYNOLDS NUMBER
10 print (5.67E-8*(2200**4)) # STEFAN-BOLTZMANN LAW
11 print (100/((1 + (.8 * 2 * 20 ))*(1/.8))) # ARPS EQUATION
12 print (20/35) # M/M/1 Q
13 print (2 + (20*(tan(math.radians(35))))) # Mohr-Coulom
    Failure Criterion
14 print (math.degrees(math.asin((7.5E-7)/(2 * 1E-6))))
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```
1 import math
2 from math import *
3
4 # function 1
5
6 print ("This shows the evaluation of a  $\sin(x)/x$ 
    evaluated from 1 to  $10^{-7}$ ")
7 print ("my guess is around .9 ")
8 print (math.sin(1)/1)
9 print (math.sin(.1)/.1)
10 print (math.sin(.01)/.01)
11 print (math.sin(.001)/.001)
12 print (math.sin(.0001)/.0001)
13 print (math.sin(.00001)/.00001)
14 print (math.sin(.000001)/.000001)
15 print (math.sin(.0000001)/.0000001)
16
17 # function 2
18 print ("This shows the evaluation of a  $1-\cos(x)/x^2$ 
    evaluated from 1 to  $10^{-7}$ ")
19 print ("my guess is around .4 ")
20 print ((1-(math.cos(1)))/1**2))
21 print ((1-(math.cos(.1)))/(.1**2))
22 print ((1-(math.cos(.01)))/(.01**2))
23 print ((1-(math.cos(.001)))/(.001**2))
24 print ((1-(math.cos(.0001)))/(.0001**2))
25 print ((1-(math.cos(.00001)))/(.00001**2))
26 print ((1-(math.cos(.000001)))/(.000001**2))
27 print ((1-(math.cos(.0000001)))/(.0000001**2))
28 # function 3
29 print ("This shows the evaluation of a  $(1+1/x)^x$  evaluated
    from 1 to  $10^{-7}$ ")
30 print ("my guess is around 2 ")
31 print ((1+(1/1))**1)
32 print ((1+(1/.1))**.1)
33 print ((1+(1/.01))**.01)
34 print ((1+(1/.001))**.001)
35 print ((1+(1/.0001))**.0001)
36 print ((1+(1/.00001))**.00001)
37 print ((1+(1/.000001))**.000001)
38 print ((1+(1/.0000001))**.0000001)
39
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