Problem 1-1 nlgn

February 2, 2023

[34]:
```
from math import *
N=1
n=1

t= 3.16*pow(10,15)
while n * log(n, 2) < t:

    N += 1
    def findFactSum(N):
        f = 1
        Sum = 0
        for i in range(1, N + 1):
            f = f * i
            Sum += f
        return Sum
    n = findFactSum(N)

while n * log(n, 2) > t:

    n -= 1
    while n * log(n, 2) > t:
        s=7
        n-=pow(10,s)
        #s+=1
#Scientific Notation
print("{:e}".format(n))
```

```
6.874595e+13
```

[35]:
```
from math import *
N=1
n=1

t= 3.15*pow(10,13)

while n * log(n, 2) < t:

    N += 1
```

```
    def findFactSum(N):
        f = 1
        Sum = 0
        for i in range(1, N + 1):
            f = f * i
            Sum += f
        return Sum
    n = findFactSum(N)

while n * log(n, 2) > t:

    n -= 1
    while n * log(n, 2) > t:
        s=5
        n-=pow(10,s)
        #s+=1
#Scientific Notation
print("{:e}".format(n))
```

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7.967553e+11
```

[39]:
```
from math import *
N=1
n=1

t= 2.59*pow(10,12)

while n * log(n, 2) < t:

    N += 1
    def findFactSum(N):
        f = 1
        Sum = 0
        for i in range(1, N + 1):
            f = f * i
            Sum += f
        return Sum
    n = findFactSum(N)

while n * log(n, 2) > t:

    n -= 1
    while n * log(n, 2) > t:
        s=4
        n-=pow(10,s)
        #s+=1
#Scientific Notation
```

```
print("{:e}".format(n))
```

7.181753e+10

[40]:
```
from math import *
N=1
n=1

t= 8.64*pow(10,10)

while n * log(n, 2) < t:

    N += 1
    def findFactSum(N):
        f = 1
        Sum = 0
        for i in range(1, N + 1):
            f = f * i
            Sum += f
        return Sum
    n = findFactSum(N)

while n * log(n, 2) > t:

    n -= 1
    while n * log(n, 2) > t:
        s=3
        n-=pow(10,s)
        #s+=1
#Scientific Notation
print("{:e}".format(n))
```

2.755147e+09

[41]:
```
from math import *
N=1
n=1

t= 3.6*pow(10,9)

while n * log(n, 2) < t:

    N += 1
    def findFactSum(N):
        f = 1
        Sum = 0
        for i in range(1, N + 1):
            f = f * i
```

```
            Sum += f
        return Sum
    n = findFactSum(N)

while n * log(n, 2) > t:

    n -= 1
    while n * log(n, 2) > t:
        s=2
        n-=pow(10,s)
        #s+=1
#Scientific Notation
print("{:e}".format(n))
```

```
1.333780e+08
```

[42]:
```
from math import *
N=1
n=1

t= 6*pow(10,7)

while n * log(n, 2) < t:

    N += 1
    def findFactSum(N):
        f = 1
        Sum = 0
        for i in range(1, N + 1):
            f = f * i
            Sum += f
        return Sum
    n = findFactSum(N)

while n * log(n, 2) > t:

    n -= 1
    while n * log(n, 2) > t:
        s=1
        n-=pow(10,s)
        #s+=1
#Scientific Notation
print("{:e}".format(n))
```

```
2.801412e+06
```

[43]:
```
from math import *
N=1
```

```
n=1
t= 1*pow(10,6)

while n * log(n, 2) < t:

    N += 1
    def findFactSum(N):
        f = 1
        Sum = 0
        for i in range(1, N + 1):
            f = f * i
            Sum += f
        return Sum
    n = findFactSum(N)

while n * log(n, 2) > t:

    n -= 1
        #s+=1
#Scientific Notation
print("{:e}".format(n))
```

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6.274600e+04
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[ ]: