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```
In [1]: def fac(n):
    if n < 0:
        return -1
    elif n == 0:
        return 1
    else:
        return n * fac(n - 1)

fac(24)
```

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Out[1]: 620448401733239439360000

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```
In [2]: def comboNoRep(n,k):
    x = ((fac(n))/(fac(k) * fac(n-k)))
    return x
comboNoRep(8,5)
```

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Out[2]: 56.0

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```
In [3]: def permutations(n,r):
    c = 1
    for z in range(r):
        c = n * c
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    return c
D = set(['a','b','c','d'])

permutations(len(D),2)
```

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Out[3]: 16

```
In [8]: p = 1
n = 5
d = 10
q = 25
f = 50

w = 0
s = 0
z = 0
y = 0
x = 0

pamt = 0
namt = 0
damt = 0
qamt = 0
famt = 0

T = 99

def fifty(o):
    w += 1
    o = T-f
    return o

def twentyfive(o):
    s += 1
    o = T - q
    return o

while(T > 0):
    if(T%f != 0):
        T = fifty(T)
        pass
    if(T%q != 0):
        T = twentyfive(T)
~~~~~
```

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In [ ]:
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