

```

20 1 #Lab 2
21 2 factorial(27)
22 3 #or
23 4 def fac(n):
24 5     if n < 0:
25 6         return -1
26 7     elif n == 0:
27 8         return 1
28 9     else:
29 10        return n * fac(n - 1)
30 11
31 12 fac(27)
32 13
32 14 10888869450418352160768000000
32 15 10888869450418352160768000000
33 16
34 17 binomial(8,5)
35 18 #or
36 19 def BiTheorem(n,k):
37 20     x = ((fac(n))/(fac(k) * fac(n-k)))
38 21     return x
39 22 BiTheorem(8,5)
40 23
40 24 56
40 25 56
41 26
42 27 D = Set(['a','b','c','d'])
43 28
44 29 Arrangements(D,2).list()
45 30
45 31 [['a', 'c'], ['a', 'b'], ['a', 'd'], ['c', 'a'], ['c', 'b'], ['c', 'd'],
45 32  ['b', 'a'], ['b', 'c'], ['b', 'd'], ['d', 'a'], ['d', 'c'], ['d', 'b']]
46 33
47 34 A = [1,5,10,25,50]
48 35
49 36 B = WeightedIntegerVectors(99,A)
50 37
51 38 B.cardinality()
52 39
52 40 252

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