

Formulations and Expressions of Two Geometrical Point Connection Complexity Graph Series Sequences

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Description: *The number sequence to enumerate the possibilities of the numeric index of number of vertices in connection in a series of unique graphs, by possible combinations as well as possible combinations with respect to geometric disorganization or hierarchy, shall now be listed following the governing functions.*

$$f(x) = 2^{(\text{sum}(i=1 \rightarrow \text{index}, i-1))}$$

$$g(x) = (\text{index})^{(\text{sum}(i=1 \rightarrow \text{index}, i-1))}$$

Software outputs enumerating this sequence:

the number to enumerate the sequence to: 15

index: 1

point pair permutation single connection: 1

index with all possible intersections considered: 1

index: 2

point pair permutation single connection: 2

index with all possible intersections considered: 2

index: 3

point pair permutation single connection: 8

index with all possible intersections considered: 27

index: 4

point pair permutation single connection: 64

index with all possible intersections considered: 4096

index: 5

point pair permutation single connection: 1024

index with all possible intersections considered: 9765625

index: 6

point pair permutation single connection: 32768

index with all possible intersections considered: 4.7018e+11

index: 7

point pair permutation single connection: 2097152

index with all possible intersections considered: 5.5855e+17

index: 8

point pair permutation single connection: 268435456

index with all possible intersections considered: 1.9343e+25

index: 9

point pair permutation single connection: 6.8719e+10

index with all possible intersections considered: 2.2528e+34

index: 10

point pair permutation single connection: 3.5184e+13

index with all possible intersections considered: 1.0000e+45

index: 11

point pair permutation single connection: 3.6029e+16

index with all possible intersections considered: 1.8906e+57

index: 12

point pair permutation single connection: 7.3787e+19

index with all possible intersections considered: 1.6825e+71

index: 13

point pair permutation single connection: 3.0223e+23

index with all possible intersections considered: 7.7194e+86

index: 14

point pair permutation single connection: 2.4759e+27

index with all possible intersections considered: 1.9845e+104

index: 15

point pair permutation single connection: 4.0565e+31

index with all possible intersections considered: 3.0873e+123