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- $\Gamma_s(n)$, sequence of functions on \mathcal{N} , 43
 $\Phi(\mathcal{G}, \rho)$, intersection point, 212
 $\Pi_s(n)$, sequence of functions, 43
 $\Psi(x)$, characteristic function, 247
 $\Psi_s(m, n)$, length of $DS(n, s)$ with m 1-chains, 21
 $\Psi_s^t(m, n)$, length of $DS(n, s)$ with m t -chains, 21
 Ψ_Π , mapping function, 78
 $\alpha(n)$, inverse Ackermann's function, 18, 23
 $\alpha_k(n)$, functional inverse of $A_k(n)$, 22
 $\beta_k(n)$, auxiliary functions, 25
 $\lambda_s(n)$, length of $DS(n, s)$, 17
 $\mu_{s,t}(n)$, number of t -chains, 21
 $\sigma(T)$, stabbing number, 189
 $A(n)$, Ackermann's function, 22
 $\mathcal{A}(\mathcal{L})$, arrangement of lines, 2
 $\mathcal{A}(\Gamma)$, arrangement of arcs, 73
 \mathcal{B} , binary tree, 214
 $\mathcal{C}(m, K)$, number of cells, 135
 $C_s(n)$, sequence of functions on $\Gamma_i(n)$, 19, 42, 43
 $DS(n, s)$, Davenport-Schinzel sequence, 17
 $F_k(m)$, # of fans in $DS(n, 4)$, 34
 $\mathcal{F}_k(n)$, sequence of functions on $\Gamma_s(n)$, 47
 $F_k^s(m)$, # of fans in $DS(n, s)$, 55
 $F_k^w(m)$, # of fans, 59
 $\mathcal{G}_k(n)$, sequence of functions on $\Gamma_s(n)$, 47
 $K(m, n)$, complexity of many faces, 5
 \mathcal{L} , set of lines, 105
 \mathcal{M}_Γ , lower envelope, 6, 87
 $N_k(m)$, # of symbols, 37
 $N_k^s(m)$, # of symbols, 55
 \mathcal{P} , polygon, 70
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 \mathcal{R} , random subset, 105
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 $S_k^s(m)$, a $DS(n, s)$ sequence, 62
 $\mathcal{T}(m, K)$, running time, 135
 $V_{\mathcal{B}}(\ell)$, stabbed nodes, 215

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