

Index

A

algorithm, 77
almost regular tetrahedron, 71
apex vertex, 125
Archimedean antiprism, 61
Archimedean prism, 61

B

base, 125
binary decision diagram (BDD), 46, 190
bottom, 201
breadth-first search (BFS), 35
bumpy pyramid, 125

C

Catalan number, 91
chunk, 105
computational complexity, 77
countable set, 199
counting argument, 99, 107
crease width, 78
crease width at crease i , 109

D

debugger, 201
development, 4
dome, 144
double packable solid, 37
doubly covered rectangle, 17
doubly covered square, 177
Dragon curve, 99
dual, 11, 12, 128
dynamic programming, 141

E

ear, 129
equivalent, 16

F

Fibonacci number, 99
fixed parameter tractable (FPT), 112, 117
fixed point, 71
folder, 115
folding, ix
folding complexity, 78
fractal curves, 69

G

general triangular grid, 14
golden ratio, 101

H

halting problem, 201
Hamiltonian unfolding, 144, 145
Hamilton path, 145

I

initial state, 84

L

linkage, 85

M

Millennium problems, 112

N

nested prismoid, 152
net, 4

O

One-dimensional origami, 204
Origami in Science, Mathematics, and Education, v
orthogonal polyhedra, 39

P

p2 tiling, 14
partial net, 35
3-PARTITION, 114
petal folding problem, 125
petal polygon, 125
petal pyramid folding problem, 125
Plato solids, 11
polygon, 3
polyhedron, 3
polyomino, 25
power diagram, 130
prismatoid, 144
prismoid, 144
Pythagorean triple, 169

R

reduction, 113
regular, 156
regular-faced convex polyhedron, 60
regular polyhedron, 11
rep-cube, 155
rep-tile, 155
rhombic dodecahedron, 145
rolling belt, 21
rotation center, 16

S

saddle point, 130

semi-regular polyhedron, 61
simple folding model, 84
site, 129
space complexity, 77
spanning tree, 9
spiral folded state, 113
square grid, 14
stamp folding problem, 88
Steiner points, 209
Steiner tree, 209
Stirling's formula, 215

T

terminators, 114
tetramonohedron, 14
tiling, 13
time complexity, 77
Torricelli's construction, 209
touch, 28
trace, 131
tree, 9
triangular grid, 14
triangulations, 125, 128
truncated icosahedron, 11, 61

U

unfolding, 4
uniform, 156

V

visibility, 86
volcano-unfolding, 144
Voronoi diagram, 129
Voronoi edge, 129
Voronoi node, 129

Z

zipper-unfolding, 144, 145