

PHÂN LOẠI SPOJ

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PHẦN 1: THUẬT TOÁN

1.1 Kỹ năng cài đặt cơ bản

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1.2 Sắp xếp và tìm kiếm

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1.3 Giải thuật Tham lam

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http://www.spoj.com/PTIT/problems/P144PROH/	6
http://www.spoj.com/PTIT/problems/P146PROE/	5
http://www.spoj.com/PTIT/problems/P151PROE/	5
http://www.spoj.com/PTIT/problems/P152PROD/	5
http://www.spoj.com/PTIT/problems/P166PROI/	5
http://www.spoj.com/PTIT/problems/P17QPROE/	4
http://www.spoj.com/PTIT/problems/P173PROF/	5
http://www.spoj.com/PTIT/problems/P175PROA/	5
http://www.spoj.com/PTIT/problems/P178PROI/	5
http://www.spoj.com/PTIT/problems/BCACM11C/	5
http://www.spoj.com/PTIT/problems/PTIT013J/	8
http://www.spoj.com/PTIT/problems/PTIT016D/	3
http://www.spoj.com/PTIT/problems/BCPLES/	5
http://www.spoj.com/PTIT/problems/BCSODA/	5
http://www.spoj.com/PTIT/problems/AVERSEQ/	5
http://www.spoj.com/PTIT/problems/PTITSU1B/	7
http://www.spoj.com/PTIT/problems/PTITSU1F/	5
http://www.spoj.com/PTIT/problems/P131SUMB/	8
http://www.spoj.com/PTIT/problems/P131SUME/	5
http://www.spoj.com/PTIT/problems/P132SUMF/	6
http://www.spoj.com/PTIT/problems/P132SUMI/	5
http://www.spoj.com/PTIT/problems/P133SUMD/	8
http://www.spoj.com/PTIT/problems/P135SUMH/	5
http://www.spoj.com/PTIT/problems/P136SUMF/	5
http://www.spoj.com/PTIT/problems/P144SUMB/	5
http://www.spoj.com/PTIT/problems/P151SUMH/	6
http://www.spoj.com/PTIT/problems/P152SUMC/	6
http://www.spoj.com/PTIT/problems/P154SUMA/	7
http://www.spoj.com/PTIT/problems/P154SUME/	5
http://www.spoj.com/PTIT/problems/P155SUMC/	5
http://www.spoj.com/PTIT/problems/P156SUMA/	7
http://www.spoj.com/PTIT/problems/P161SUMC/	5
http://www.spoj.com/PTIT/problems/P162SUMI/	4
http://www.spoj.com/PTIT/problems/P163SUMD/	5

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1.4 Quay lui

http://www.spoj.com/PTIT/problems/BCQUEEN/	3
http://www.spoj.com/PTIT/problems/BCATM/	3
http://www.spoj.com/PTIT/problems/BCCHIANHOM/	4
http://www.spoj.com/PTIT/problems/BCATM2/	3
http://www.spoj.com/PTIT/problems/BCTSP/	3
http://www.spoj.com/PTIT/problems/PTIT121B/	3
http://www.spoj.com/PTIT/problems/PTIT124F/	4
http://www.spoj.com/PTIT/problems/PTIT134J/	6
http://www.spoj.com/PTIT/problems/PTIT135E/	5
http://www.spoj.com/PTIT/problems/PTIT137C/	9
http://www.spoj.com/PTIT/problems/PTIT137F/	6
http://www.spoj.com/PTIT/problems/P142PROG/	5
http://www.spoj.com/PTIT/problems/P147PROC/	6
http://www.spoj.com/PTIT/problems/P164PROB/	5
http://www.spoj.com/PTIT/problems/P167PROC/	4
http://www.spoj.com/PTIT/problems/PTIT014G/	4
http://www.spoj.com/PTIT/problems/BCCOW/	3
http://www.spoj.com/PTIT/problems/BCCOLDWA/	5
http://www.spoj.com/PTIT/problems/BCTEST13/	4
http://www.spoj.com/PTIT/problems/BCPERMU1/	4
http://www.spoj.com/PTIT/problems/PTITSU1C/	3
http://www.spoj.com/PTIT/problems/P135SUMG/	6
http://www.spoj.com/PTIT/problems/P142SUME/	4
http://www.spoj.com/PTIT/problems/P153SUMB/	5
http://www.spoj.com/PTIT/problems/P163SUME/	5

1.5 Quy hoạch động

1.5.1 Các thuật toán quy hoạch động cơ bản và áp dụng

http://www.spoj.com/PTIT/problems/VLPT12A/	4
http://www.spoj.com/PTIT/problems/BCPARTI/	3
http://www.spoj.com/PTIT/problems/BCBIT/	4
http://www.spoj.com/PTIT/problems/BCLULIST/	4
http://www.spoj.com/PTIT/problems/BCSTR/	3
http://www.spoj.com/PTIT/problems/BCCAITUI/	3
http://www.spoj.com/PTIT/problems/PTIT121D/	3
http://www.spoj.com/PTIT/problems/PTIT122H/	6
http://www.spoj.com/PTIT/problems/PTIT123H/	4
http://www.spoj.com/PTIT/problems/PTIT123D/	3
http://www.spoj.com/PTIT/problems/PTIT125E/	4
http://www.spoj.com/PTIT/problems/PTIT125F/	2
http://www.spoj.com/PTIT/problems/PTIT125K/	7

http://www.spoj.com/PTIT/problems/PTIT126G/	3
http://www.spoj.com/PTIT/problems/PTIT127E/	4
http://www.spoj.com/PTIT/problems/PTIT127H/	5
http://www.spoj.com/PTIT/problems/STRBALAN/	4
http://www.spoj.com/PTIT/problems/XEPBONG/	5
http://www.spoj.com/PTIT/problems/PTIT134H/	5
http://www.spoj.com/PTIT/problems/PTIT136D/	3
http://www.spoj.com/PTIT/problems/PTIT136E/	5
http://www.spoj.com/PTIT/problems/PTIT138G/	7
http://www.spoj.com/PTIT/problems/P141PROD/	6
http://www.spoj.com/PTIT/problems/P143PROF/	3
http://www.spoj.com/PTIT/problems/P143PROI/	8
http://www.spoj.com/PTIT/problems/P145PROA/	9
http://www.spoj.com/PTIT/problems/P145PROI/	3
http://www.spoj.com/PTIT/problems/P146PROI/	10
http://www.spoj.com/PTIT/problems/P147PROD/	6
http://www.spoj.com/PTIT/problems/P148PROF/	5
http://www.spoj.com/PTIT/problems/P148PROG/	6
http://www.spoj.com/PTIT/problems/P151PROB/	5
http://www.spoj.com/PTIT/problems/P151PROJ/	9
http://www.spoj.com/PTIT/problems/P152PROE/	3
http://www.spoj.com/PTIT/problems/P152PROH/	5
http://www.spoj.com/PTIT/problems/P152PROJ/	10
http://www.spoj.com/PTIT/problems/P154PROD/	5
http://www.spoj.com/PTIT/problems/P154PROH/	8
http://www.spoj.com/PTIT/problems/P155PROC/	6
http://www.spoj.com/PTIT/problems/P156PROB/	8
http://www.spoj.com/PTIT/problems/P156PROF/	7
http://www.spoj.com/PTIT/problems/P157PROC/	6
http://www.spoj.com/PTIT/problems/P157PROE/	3
http://www.spoj.com/PTIT/problems/P161PROB/	5
http://www.spoj.com/PTIT/problems/P161PROF/	5
http://www.spoj.com/PTIT/problems/P164PROA/	5
http://www.spoj.com/PTIT/problems/P164PROC/	7
http://www.spoj.com/PTIT/problems/P165PROB/	4
http://www.spoj.com/PTIT/problems/P165PROI/	4
http://www.spoj.com/PTIT/problems/P17QPROD/	6
http://www.spoj.com/PTIT/problems/P171PROI/	6
http://www.spoj.com/PTIT/problems/P171PROB/	8
http://www.spoj.com/PTIT/problems/P172PROE/	5
http://www.spoj.com/PTIT/problems/P172PROI/	8
http://www.spoj.com/PTIT/problems/P173PROI/	8
http://www.spoj.com/PTIT/problems/P174PROB/	8
http://www.spoj.com/PTIT/problems/P174PROH/	5
http://www.spoj.com/PTIT/problems/P174PROI/	6
http://www.spoj.com/PTIT/problems/P175PROI/	10
http://www.spoj.com/PTIT/problems/P176PROI/	10
http://www.spoj.com/PTIT/problems/P177PROB/	4
http://www.spoj.com/PTIT/problems/P177PROD/	5
http://www.spoj.com/PTIT/problems/P178PROH/	7
http://www.spoj.com/PTIT/problems/P179PROC/	6

http://www.spoj.com/PTIT/problems/BCACM11F/	7
http://www.spoj.com/PTIT/problems/BCACM11I/	9
http://www.spoj.com/PTIT/problems/PTIT014C/	3
http://www.spoj.com/PTIT/problems/PTIT014F/	7
http://www.spoj.com/PTIT/problems/PTIT015F/	8
http://www.spoj.com/PTIT/problems/BCSON/	3
http://www.spoj.com/PTIT/problems/BCMATRIX/	4
http://www.spoj.com/PTIT/problems/BCSKAKAC/	10
http://www.spoj.com/PTIT/problems/BCLIQ/	3
http://www.spoj.com/PTIT/problems/BCMCMON/	5
http://www.spoj.com/PTIT/problems/CO060716/	10
http://www.spoj.com/PTIT/problems/BCTEST15/	5
http://www.spoj.com/PTIT/problems/P131SUMJ/	6
http://www.spoj.com/PTIT/problems/P133SUME/	7
http://www.spoj.com/PTIT/problems/P133SUMG/	8
http://www.spoj.com/PTIT/problems/P134SUMD/	6
http://www.spoj.com/PTIT/problems/P135SUMB/	7
http://www.spoj.com/PTIT/problems/P135SUMF/	3
http://www.spoj.com/PTIT/problems/P136SUMA/	6
http://www.spoj.com/PTIT/problems/P141SUMC/	5
http://www.spoj.com/PTIT/problems/P141SUMG/	7
http://www.spoj.com/PTIT/problems/P141SUMJ/	9
http://www.spoj.com/PTIT/problems/P142SUMF/	5
http://www.spoj.com/PTIT/problems/P143SUMC/	4
http://www.spoj.com/PTIT/problems/P143SUMF/	6
http://www.spoj.com/PTIT/problems/P144SUMD/	7
http://www.spoj.com/PTIT/problems/P144SUME/	5
http://www.spoj.com/PTIT/problems/P146SUME/	7
http://www.spoj.com/PTIT/problems/P153SUMD/	5
http://www.spoj.com/PTIT/problems/P154SUMD/	5
http://www.spoj.com/PTIT/problems/P155SUMA/	6
http://www.spoj.com/PTIT/problems/P156SUMC/	10
http://www.spoj.com/PTIT/problems/P156SUMG/	6
http://www.spoj.com/PTIT/problems/P161SUME/	6
http://www.spoj.com/PTIT/problems/P161SUMF/	6
http://www.spoj.com/PTIT/problems/P162SUMJ/	7
http://www.spoj.com/PTIT/problems/P165SUME/	6
http://www.spoj.com/PTIT/problems/P166SUME/	10
http://www.spoj.com/PTIT/problems/P166SUMF/	7

1.5.2 Quy hoạch động trạng thái

http://www.spoj.com/PTIT/problems/P141PROI/	7
http://www.spoj.com/PTIT/problems/P167PROF/	6
http://www.spoj.com/PTIT/problems/P173PROB/	7
http://www.spoj.com/PTIT/problems/P179PROH/	6
http://www.spoj.com/PTIT/problems/CO060715/	6
http://www.spoj.com/PTIT/problems/P151SUMC/	7

http://www.spoj.com/PTIT/problems/P151SUMD/	6
http://www.spoj.com/PTIT/problems/P163SUMC/	8
http://www.spoj.com/PTIT/problems/P165SUMF/	8

1.5.3 Quy hoạch động trên cây

http://www.spoj.com/PTIT/problems/PTIT128D/	6
http://www.spoj.com/PTIT/problems/P151PROD/	6
http://www.spoj.com/PTIT/problems/P152PROC/	6
http://www.spoj.com/PTIT/problems/P155PROJ/	9
http://www.spoj.com/PTIT/problems/P176PROD/	8
http://www.spoj.com/PTIT/problems/BCVACATI/	6
http://www.spoj.com/PTIT/problems/P156SUMB/	7

1.6. Xử lý xâu

1.6.1 Xử lý xâu cơ bản

http://www.spoj.com/PTIT/problems/PTIT127G/	3
http://www.spoj.com/PTIT/problems/EXCEL/	3
http://www.spoj.com/PTIT/problems/BCTELEPH/	3
http://www.spoj.com/PTIT/problems/BCBASEAD/	3
http://www.spoj.com/PTIT/problems/PTIT121C/	3
http://www.spoj.com/PTIT/problems/PTIT122A/	4
http://www.spoj.com/PTIT/problems/PTIT126I/	2
http://www.spoj.com/PTIT/problems/PTIT128J/	9
http://www.spoj.com/PTIT/problems/PTIT136G/	3
http://www.spoj.com/PTIT/problems/PTIT137B/	7
http://www.spoj.com/PTIT/problems/PTIT138C/	3
http://www.spoj.com/PTIT/problems/P143PROE/	4
http://www.spoj.com/PTIT/problems/P148PROB/	6
http://www.spoj.com/PTIT/problems/P154PROI/	3
http://www.spoj.com/PTIT/problems/P162PROF/	4
http://www.spoj.com/PTIT/problems/P163PROA/	3
http://www.spoj.com/PTIT/problems/P164PROE/	6
http://www.spoj.com/PTIT/problems/P165PROA/	3
http://www.spoj.com/PTIT/problems/P176PROA/	5
http://www.spoj.com/PTIT/problems/P178PROG/	4
http://www.spoj.com/PTIT/problems/P179PROB/	4
http://www.spoj.com/PTIT/problems/PTIT017I/	5
http://www.spoj.com/PTIT/problems/BCTEST12/	3
http://www.spoj.com/PTIT/problems/P145SUMD/	5
http://www.spoj.com/PTIT/problems/P151SUMI/	3
http://www.spoj.com/PTIT/problems/P153SUMG/	5
http://www.spoj.com/PTIT/problems/P154SUMH/	7
http://www.spoj.com/PTIT/problems/P162SUMC/	5
http://www.spoj.com/PTIT/problems/P162SUMG/	3

http://www.spoj.com/PTIT/problems/P163SUMG/	4
http://www.spoj.com/PTIT/problems/P165SUMH/	4

1.6.2 Tìm kiếm mẫu (KMP, Hash, Z)

http://www.spoj.com/PTIT/problems/PTIT137I/	7
http://www.spoj.com/PTIT/problems/P141PROH/	9
http://www.spoj.com/PTIT/problems/P172PROC/	5
http://www.spoj.com/PTIT/problems/P176PROC/	6
http://www.spoj.com/PTIT/problems/P176PROE/	5
http://www.spoj.com/PTIT/problems/PTIT013E/	6
http://www.spoj.com/PTIT/problems/P142SUMD/	6
http://www.spoj.com/PTIT/problems/P153SUMA/	6
http://www.spoj.com/PTIT/problems/P156SUME/	5
http://www.spoj.com/PTIT/problems/P162SUMB/	6

1.6.3 Trie

http://www.spoj.com/PTIT/problems/P166PROJ/	9
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1.6.4 Suffix tree

http://www.spoj.com/PTIT/problems/PTIT015J/	8
http://www.spoj.com/PTIT/problems/P152SUMJ/	8

1.7. Toán học

1.7.1 Số học

http://www.spoj.com/PTIT/problems/BCREMAI/	9
http://www.spoj.com/PTIT/problems/BCPNA/	2
http://www.spoj.com/PTIT/problems/BCMULONE/	3
http://www.spoj.com/PTIT/problems/BCNUMEND/	8
http://www.spoj.com/PTIT/problems/VLPT12G/	4
http://www.spoj.com/PTIT/problems/WARGCD4/	6
http://www.spoj.com/PTIT/problems/ALGOPRO12/	2
http://www.spoj.com/PTIT/problems/ALGOPRO9/	6
http://www.spoj.com/PTIT/problems/PTIT123I/	3
http://www.spoj.com/PTIT/problems/PTIT123F/	2
http://www.spoj.com/PTIT/problems/PTIT128I/	8
http://www.spoj.com/PTIT/problems/PRISUSTR/	4
http://www.spoj.com/PTIT/problems/DIRICADD/	10

http://www.spoj.com/PTIT/problems/APPDIVIS/	5
http://www.spoj.com/PTIT/problems/PTIT133E/	7
http://www.spoj.com/PTIT/problems/PTIT134G/	6
http://www.spoj.com/PTIT/problems/PTIT135C/	4
http://www.spoj.com/PTIT/problems/PTIT138A/	1
http://www.spoj.com/PTIT/problems/P142PROI/	4
http://www.spoj.com/PTIT/problems/P142PROF/	4
http://www.spoj.com/PTIT/problems/P145PROG/	4
http://www.spoj.com/PTIT/problems/P145PROH/	4
http://www.spoj.com/PTIT/problems/P146PROH/	6
http://www.spoj.com/PTIT/problems/P147PROE/	8
http://www.spoj.com/PTIT/problems/P148PROC/	6
http://www.spoj.com/PTIT/problems/P151PROF/	4
http://www.spoj.com/PTIT/problems/P152PROA/	3
http://www.spoj.com/PTIT/problems/P152PROI/	4
http://www.spoj.com/PTIT/problems/P153PROA/	5
http://www.spoj.com/PTIT/problems/P153PROB/	6
http://www.spoj.com/PTIT/problems/P154PROA/	4
http://www.spoj.com/PTIT/problems/P156PROA/	7
http://www.spoj.com/PTIT/problems/P161PROA/	3
http://www.spoj.com/PTIT/problems/P161PROE/	5
http://www.spoj.com/PTIT/problems/P161PROG/	3
http://www.spoj.com/PTIT/problems/P163PROG/	3
http://www.spoj.com/PTIT/problems/P165PROJ/	6
http://www.spoj.com/PTIT/problems/P166PROE/	6
http://www.spoj.com/PTIT/problems/P166PROH/	3
http://www.spoj.com/PTIT/problems/P167PROE/	3
http://www.spoj.com/PTIT/problems/P17QPROC/	4
http://www.spoj.com/PTIT/problems/P172PROD/	5
http://www.spoj.com/PTIT/problems/P172PROJ/	6
http://www.spoj.com/PTIT/problems/P173PROC/	5
http://www.spoj.com/PTIT/problems/P173PROD/	6
http://www.spoj.com/PTIT/problems/P173PROH/	3
http://www.spoj.com/PTIT/problems/P173PROJ/	6
http://www.spoj.com/PTIT/problems/P176PROG/	4
http://www.spoj.com/PTIT/problems/P177PROI/	10
http://www.spoj.com/PTIT/problems/PTIT015D/	9
http://www.spoj.com/PTIT/problems/PTIT015E/	4
http://www.spoj.com/PTIT/problems/PTIT016A/	5
http://www.spoj.com/PTIT/problems/PTIT016G/	7
http://www.spoj.com/PTIT/problems/PTIT017A/	4
http://www.spoj.com/PTIT/problems/PTIT017F/	3
http://www.spoj.com/PTIT/problems/PTIT017H/	4
http://www.spoj.com/PTIT/problems/BCPP/	4
http://www.spoj.com/PTIT/problems/BCPOW/	4
http://www.spoj.com/PTIT/problems/BCLUCKY1/	3
http://www.spoj.com/PTIT/problems/BCLUCKY2/	4
http://www.spoj.com/PTIT/problems/BCZADACA/	6
http://www.spoj.com/PTIT/problems/BCTEST11/	3
http://www.spoj.com/PTIT/problems/BCMATHP/	3
http://www.spoj.com/PTIT/problems/P132SUMH/	3

http://www.spoj.com/PTIT/problems/P134SUMF/	4
http://www.spoj.com/PTIT/problems/P142SUMA/	3
http://www.spoj.com/PTIT/problems/P144SUMI/	4
http://www.spoj.com/PTIT/problems/P145SUMC/	5
http://www.spoj.com/PTIT/problems/P145SUME/	5
http://www.spoj.com/PTIT/problems/P152SUMD/	8
http://www.spoj.com/PTIT/problems/P152SUME/	6
http://www.spoj.com/PTIT/problems/P154SUMG/	5
http://www.spoj.com/PTIT/problems/P154SUMI/	3
http://www.spoj.com/PTIT/problems/P155SUMH/	6
http://www.spoj.com/PTIT/problems/P155SUMJ/	9
http://www.spoj.com/PTIT/problems/P162SUME/	5
http://www.spoj.com/PTIT/problems/P164SUME/	9
http://www.spoj.com/PTIT/problems/P165SUMG/	5

1.7.2 Hình học

http://www.spoj.com/PTIT/problems/CIRPOINT/	7
http://www.spoj.com/PTIT/problems/NUCLEAR2/	5
http://www.spoj.com/PTIT/problems/PTIT121A/	4
http://www.spoj.com/PTIT/problems/PTIT122E/	5
http://www.spoj.com/PTIT/problems/PTIT124H/	2
http://www.spoj.com/PTIT/problems/PTIT128B/	6
http://www.spoj.com/PTIT/problems/PTIT137E/	9
http://www.spoj.com/PTIT/problems/PTIT138D/	5
http://www.spoj.com/PTIT/problems/P143PROA/	10
http://www.spoj.com/PTIT/problems/P143PROD/	5
http://www.spoj.com/PTIT/problems/P144PROG/	10
http://www.spoj.com/PTIT/problems/P144PROF/	6
http://www.spoj.com/PTIT/problems/P144PROJ/	8
http://www.spoj.com/PTIT/problems/P145PROD/	1
http://www.spoj.com/PTIT/problems/P145PROJ/	8
http://www.spoj.com/PTIT/problems/P147PROJ/	9
http://www.spoj.com/PTIT/problems/P154PROJ/	9
http://www.spoj.com/PTIT/problems/P163PROC/	8
http://www.spoj.com/PTIT/problems/P166PROB/	3
http://www.spoj.com/PTIT/problems/P167PROH/	10
http://www.spoj.com/PTIT/problems/P177PROA/	3
http://www.spoj.com/PTIT/problems/P179PROD/	6
http://www.spoj.com/PTIT/problems/PTIT013C/	4
http://www.spoj.com/PTIT/problems/PTIT014E/	6
http://www.spoj.com/PTIT/problems/PTIT014J/	10
http://www.spoj.com/PTIT/problems/UNION2/	6
http://www.spoj.com/PTIT/problems/P131SUM1/	10
http://www.spoj.com/PTIT/problems/P132SUME/	5
http://www.spoj.com/PTIT/problems/P133SUMA/	10
http://www.spoj.com/PTIT/problems/P133SUMJ/	4

http://www.spoj.com/PTIT/problems/P134SUMH/	9
http://www.spoj.com/PTIT/problems/P134SUMI/	10
http://www.spoj.com/PTIT/problems/P135SUMC/	6
http://www.spoj.com/PTIT/problems/P135SUMI/	6
http://www.spoj.com/PTIT/problems/P136SUMB/	7
http://www.spoj.com/PTIT/problems/P141SUMA/	4
http://www.spoj.com/PTIT/problems/P141SUMI/	9
http://www.spoj.com/PTIT/problems/P142SUMJ/	10
http://www.spoj.com/PTIT/problems/P142SUMI/	10
http://www.spoj.com/PTIT/problems/P143SUMH/	5
http://www.spoj.com/PTIT/problems/P145SUMI/	8
http://www.spoj.com/PTIT/problems/P146SUMH/	8
http://www.spoj.com/PTIT/problems/P163SUMB/	7

1.7.3 Tổ hợp

http://www.spoj.com/PTIT/problems/TRIANCIR/	5
http://www.spoj.com/PTIT/problems/PTIT122I/	5
http://www.spoj.com/PTIT/problems/PTIT122H/	7
http://www.spoj.com/PTIT/problems/PTIT124D/	4
http://www.spoj.com/PTIT/problems/NUMPOLY/	3
http://www.spoj.com/PTIT/problems/PTIT133C/	7
http://www.spoj.com/PTIT/problems/PTIT136F/	4
http://www.spoj.com/PTIT/problems/P161PROI/	7
http://www.spoj.com/PTIT/problems/P162PROE/	8
http://www.spoj.com/PTIT/problems/P163PROF/	8
http://www.spoj.com/PTIT/problems/P166PROC/	3
http://www.spoj.com/PTIT/problems/P17QPROF/	5
http://www.spoj.com/PTIT/problems/P171PROJ/	7
http://www.spoj.com/PTIT/problems/P174PROJ/	7
http://www.spoj.com/PTIT/problems/P175PROJ/	6
http://www.spoj.com/PTIT/problems/PTIT013D/	4
http://www.spoj.com/PTIT/problems/PTIT013F/	5
http://www.spoj.com/PTIT/problems/PTIT014I/	9
http://www.spoj.com/PTIT/problems/PTIT015B/	4
http://www.spoj.com/PTIT/problems/PTIT017D/	8
http://www.spoj.com/PTIT/problems/PTIT017G/	10
http://www.spoj.com/PTIT/problems/PTIT017J/	4
http://www.spoj.com/PTIT/problems/BCX3/	4
http://www.spoj.com/PTIT/problems/BCLPERMU/	8
http://www.spoj.com/PTIT/problems/LEDTEO/	7
http://www.spoj.com/PTIT/problems/ALGOPRO3/	8
http://www.spoj.com/PTIT/problems/BCTEST16/	6
http://www.spoj.com/PTIT/problems/P132SUMA/	8
http://www.spoj.com/PTIT/problems/P142SUMB/	5
http://www.spoj.com/PTIT/problems/P144SUMC/	6
http://www.spoj.com/PTIT/problems/P153SUMH/	6

http://www.spoj.com/PTIT/problems/P155SUME/	7
http://www.spoj.com/PTIT/problems/P164SUMF/	8

1.7.4 Các bài toán trên ma trận

http://www.spoj.com/PTIT/problems/PTIT133F/	7
http://www.spoj.com/PTIT/problems/P143PROB/	7
http://www.spoj.com/PTIT/problems/P155PROA/	5
http://www.spoj.com/PTIT/problems/P157PROF/	9
http://www.spoj.com/PTIT/problems/P162PROC/	6
http://www.spoj.com/PTIT/problems/P134SUMA/	7
http://www.spoj.com/PTIT/problems/P153SUMJ/	8
http://www.spoj.com/PTIT/problems/P156SUMJ/	9
http://www.spoj.com/PTIT/problems/P162SUMF/	7
http://www.spoj.com/PTIT/problems/P163SUMJ/	8

1.7.5 Đại số

http://www.spoj.com/PTIT/problems/PTIT133G/	8
http://www.spoj.com/PTIT/problems/PTIT136I/	8
http://www.spoj.com/PTIT/problems/PTIT137K/	7
http://www.spoj.com/PTIT/problems/P142PROE/	10
http://www.spoj.com/PTIT/problems/P163PROB/	5
http://www.spoj.com/PTIT/problems/P163PROE/	5
http://www.spoj.com/PTIT/problems/P164PROH/	8 (bignum)
http://www.spoj.com/PTIT/problems/P166PROF/	7
http://www.spoj.com/PTIT/problems/PTIT017C/	6
http://www.spoj.com/PTIT/problems/P132SUMB/	9
http://www.spoj.com/PTIT/problems/P161SUMB/	4
http://www.spoj.com/PTIT/problems/P164SUMC/	10
http://www.spoj.com/PTIT/problems/P166SUMC/	5

1.7.6 Lý thuyết trò chơi

http://www.spoj.com/PTIT/problems/VLPT12F/	5
http://www.spoj.com/PTIT/problems/PTIT128G/	10
http://www.spoj.com/PTIT/problems/PTIT133D/	4
http://www.spoj.com/PTIT/problems/PTIT134A/	4
http://www.spoj.com/PTIT/problems/P143PROH/	6
http://www.spoj.com/PTIT/problems/P147PROI/	3
http://www.spoj.com/PTIT/problems/P151PROC/	10
http://www.spoj.com/PTIT/problems/GAMEBR/	5

http://www.spoj.com/PTIT/problems/P155SUMG/	4
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PHẦN 2: CẤU TRÚC DỮ LIỆU

2.1. Ngăn xếp

http://www.spoj.com/PTIT/problems/PTIT123J/	3
http://www.spoj.com/PTIT/problems/PTIT124C/	4
http://www.spoj.com/PTIT/problems/PTIT127B/	5
http://www.spoj.com/PTIT/problems/P155PROD/	6
http://www.spoj.com/PTIT/problems/P161PROJ/	6
http://www.spoj.com/PTIT/problems/P177PROC/	5
http://www.spoj.com/PTIT/problems/BCRECT/	5
http://www.spoj.com/PTIT/problems/BCTEST17/	5
http://www.spoj.com/PTIT/problems/P131SUMG/	5
http://www.spoj.com/PTIT/problems/P151SUME/	6

2.2. Hàng đợi

http://www.spoj.com/PTIT/problems/GOODFRIE/	4
http://www.spoj.com/PTIT/problems/P142PROB/	9
http://www.spoj.com/PTIT/problems/P152SUMB/	7

2.3. Đồ thị

2.3.1 DFS, BFS

http://www.spoj.com/PTIT/problems/BCISLAND/	4
http://www.spoj.com/PTIT/problems/BCROBOT/	5
http://www.spoj.com/PTIT/problems/PTIT121K/	4
http://www.spoj.com/PTIT/problems/PTIT121G/	3
http://www.spoj.com/PTIT/problems/PTIT122L/	8
http://www.spoj.com/PTIT/problems/PTIT122B/	8
http://www.spoj.com/PTIT/problems/PTIT124E/	3
http://www.spoj.com/PTIT/problems/PTIT125D/	3
http://www.spoj.com/PTIT/problems/PTIT126H/	5
http://www.spoj.com/PTIT/problems/PTIT128A/	10
http://www.spoj.com/PTIT/problems/PTIT128F/	7
http://www.spoj.com/PTIT/problems/STRBALA2/	5
http://www.spoj.com/PTIT/problems/CRAZYFEN/	9
http://www.spoj.com/PTIT/problems/PTIT133H/	10
http://www.spoj.com/PTIT/problems/PTIT134B/	5
http://www.spoj.com/PTIT/problems/PTIT134D/	5
http://www.spoj.com/PTIT/problems/PTIT134I/	4
http://www.spoj.com/PTIT/problems/P145PROB/	7
http://www.spoj.com/PTIT/problems/P146PROA/	5
http://www.spoj.com/PTIT/problems/P147PROF/	9
http://www.spoj.com/PTIT/problems/P148PROD/	6
http://www.spoj.com/PTIT/problems/P153PROD/	6
http://www.spoj.com/PTIT/problems/P167PROB/	6

http://www.spoj.com/PTIT/problems/P17QPROG/	6
http://www.spoj.com/PTIT/problems/P17QPROJ/	7
http://www.spoj.com/PTIT/problems/P172PROA/	7
http://www.spoj.com/PTIT/problems/P175PROC/	6
http://www.spoj.com/PTIT/problems/P179PROF/	6
http://www.spoj.com/PTIT/problems/BCACM11D/	4
http://www.spoj.com/PTIT/problems/BCACM11E/	4
http://www.spoj.com/PTIT/problems/PTIT013G/	9
http://www.spoj.com/PTIT/problems/PTIT013L/	4
http://www.spoj.com/PTIT/problems/PTIT016F/	9
http://www.spoj.com/PTIT/problems/PTIT017B/	8
http://www.spoj.com/PTIT/problems/PTIT017K/	5
http://www.spoj.com/PTIT/problems/BCGRASS/	4
http://www.spoj.com/PTIT/problems/BCMUNCH/	5
http://www.spoj.com/PTIT/problems/BCLKCOUN/	5
http://www.spoj.com/PTIT/problems/CO060714/	8
http://www.spoj.com/PTIT/problems/ALGOPRO2/	8
http://www.spoj.com/PTIT/problems/BCDAISY/	3
http://www.spoj.com/PTIT/problems/PTITSU1E/	6
http://www.spoj.com/PTIT/problems/P132SUMG/	7
http://www.spoj.com/PTIT/problems/P133SUMB/	5
http://www.spoj.com/PTIT/problems/P133SUMC/	8
http://www.spoj.com/PTIT/problems/P134SUMC/	5
http://www.spoj.com/PTIT/problems/P136SUMJ/	7
http://www.spoj.com/PTIT/problems/P141SUMF/	5
http://www.spoj.com/PTIT/problems/P142SUMC/	7
http://www.spoj.com/PTIT/problems/P142SUMH/	6
http://www.spoj.com/PTIT/problems/P145SUMH/	5

2.3.2 Chu trình Euler

http://www.spoj.com/PTIT/problems/PTIT015C/	7
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2.3.3 Disjoint set

http://www.spoj.com/PTIT/problems/PTIT133I/	7
http://www.spoj.com/PTIT/problems/P179PROI/	6
http://www.spoj.com/PTIT/problems/BCBIN/	5
http://www.spoj.com/PTIT/problems/P135SUMJ/	7
http://www.spoj.com/PTIT/problems/P151SUMJ/	6

2.3.4 Cây bao trùm nhỏ nhất

http://www.spoj.com/PTIT/problems/P146PROB/	6
http://www.spoj.com/PTIT/problems/P146SUMI/	8

2.3.5 Đường đi ngắn nhất

http://www.spoj.com/PTIT/problems/PTIT124I/	4
http://www.spoj.com/PTIT/problems/DISPAST/	8
http://www.spoj.com/PTIT/problems/PTIT135D/	5
http://www.spoj.com/PTIT/problems/P146PROJ/	6
http://www.spoj.com/PTIT/problems/PTIT014H/	8
http://www.spoj.com/PTIT/problems/P144SUMH/	9
http://www.spoj.com/PTIT/problems/P146SUMC/	6

2.3.6 LCA

http://www.spoj.com/PTIT/problems/P144PROA/	7
http://www.spoj.com/PTIT/problems/P153PROH/	8
http://www.spoj.com/PTIT/problems/P162PROJ/	8
http://www.spoj.com/PTIT/problems/P164PROJ/	9
http://www.spoj.com/PTIT/problems/PTIT016I/	9
http://www.spoj.com/PTIT/problems/P156SUMD/	8

2.3.7 SAT

http://www.spoj.com/PTIT/problems/P146SUMJ/	10
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2.3.8 Luồng cực đại

http://www.spoj.com/PTIT/problems/PTIT126B/	10
http://www.spoj.com/PTIT/problems/PTIT128C/	9
http://www.spoj.com/PTIT/problems/P142PROJ/	7
http://www.spoj.com/PTIT/problems/P144PROA/	6
http://www.spoj.com/PTIT/problems/P174PROC/	7
http://www.spoj.com/PTIT/problems/PTIT015G/	8
http://www.spoj.com/PTIT/problems/PTIT017E/	7
http://www.spoj.com/PTIT/problems/P164SUMJ/	9

2.4. Binary Search Tree

http://www.spoj.com/PTIT/problems/PTIT121J/	8
http://www.spoj.com/PTIT/problems/PTIT122J/	4
http://www.spoj.com/PTIT/problems/PTIT125A/	5
http://www.spoj.com/PTIT/problems/PTIT133A/	7
http://www.spoj.com/PTIT/problems/PTIT137J/	9
http://www.spoj.com/PTIT/problems/P165PROD/	7
http://www.spoj.com/PTIT/problems/P167PROG/	8
http://www.spoj.com/PTIT/problems/P171PROH/	6
http://www.spoj.com/PTIT/problems/P171PROG/	6
http://www.spoj.com/PTIT/problems/P178PROJ/	5
http://www.spoj.com/PTIT/problems/PTIT016H/	6
http://www.spoj.com/PTIT/problems/BCSEQ/	5
http://www.spoj.com/PTIT/problems/P141SUMD/	5
http://www.spoj.com/PTIT/problems/P143SUMI/	6
http://www.spoj.com/PTIT/problems/P144SUMG/	6
http://www.spoj.com/PTIT/problems/P152SUMH/	7

2.5. Các cấu trúc cây nâng cao

2.5.1 Cây IT và BIT

http://www.spoj.com/PTIT/problems/VLPT12C/	6
http://www.spoj.com/PTIT/problems/PTIT122K/	6
http://www.spoj.com/PTIT/problems/NUCLEAV2/	6
http://www.spoj.com/PTIT/problems/PTIT133B/	9
http://www.spoj.com/PTIT/problems/P142PROA/	7
http://www.spoj.com/PTIT/problems/P153PROC/	6
http://www.spoj.com/PTIT/problems/P153PROJ/	9
http://www.spoj.com/PTIT/problems/P154PROF/	6
http://www.spoj.com/PTIT/problems/P155PROH/	8
http://www.spoj.com/PTIT/problems/P162PROB/	8
http://www.spoj.com/PTIT/problems/P163PROJ/	8
http://www.spoj.com/PTIT/problems/P172PROG/	7
http://www.spoj.com/PTIT/problems/P175PROD/	7
http://www.spoj.com/PTIT/problems/P176PROJ/	9
http://www.spoj.com/PTIT/problems/P177PROE/	6
http://www.spoj.com/PTIT/problems/P177PROJ/	9
http://www.spoj.com/PTIT/problems/P178PROL/	7
http://www.spoj.com/PTIT/problems/P179PROG/	8
http://www.spoj.com/PTIT/problems/P179PROJ/	7
http://www.spoj.com/PTIT/problems/BCSORT/	7
http://www.spoj.com/PTIT/problems/BCDNT/	5
http://www.spoj.com/PTIT/problems/BCLINEUP/	6
http://www.spoj.com/PTIT/problems/P136SUMG/	6
http://www.spoj.com/PTIT/problems/P141SUMH/	9

http://www.spoj.com/PTIT/problems/P143SUMD/	6
http://www.spoj.com/PTIT/problems/P146SUMD/	6
http://www.spoj.com/PTIT/problems/P154SUMB/	6
http://www.spoj.com/PTIT/problems/P154SUMJ/	8
http://www.spoj.com/PTIT/problems/P156SUMI/	8
http://www.spoj.com/PTIT/problems/P161SUMJ/	8

2.5.2 Other

http://www.spoj.com/PTIT/problems/BCTEST18/	9
http://www.spoj.com/PTIT/problems/P143SUMJ/	10
http://www.spoj.com/PTIT/problems/P144SUMJ/	10
http://www.spoj.com/PTIT/problems/P145SUMJ/	10