

## PHÂN LOẠI SPOJ

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## PHẦN 1: THUẬT TOÁN

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<a href="http://www.spoj.com/PTIT/problems/P176PROH/">http://www.spoj.com/PTIT/problems/P176PROH/</a>	3
<a href="http://www.spoj.com/PTIT/problems/P178PROA/">http://www.spoj.com/PTIT/problems/P178PROA/</a>	3
<a href="http://www.spoj.com/PTIT/problems/P178PROB/">http://www.spoj.com/PTIT/problems/P178PROB/</a>	5
<a href="http://www.spoj.com/PTIT/problems/P178PROD/">http://www.spoj.com/PTIT/problems/P178PROD/</a>	7

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<a href="http://www.spoj.com/PTIT/problems/P179PROA/">http://www.spoj.com/PTIT/problems/P179PROA/</a>	3
<a href="http://www.spoj.com/PTIT/problems/P179PROE/">http://www.spoj.com/PTIT/problems/P179PROE/</a>	3
<a href="http://www.spoj.com/PTIT/problems/BCACM11A/">http://www.spoj.com/PTIT/problems/BCACM11A/</a>	2
<a href="http://www.spoj.com/PTIT/problems/BCACM11B/">http://www.spoj.com/PTIT/problems/BCACM11B/</a>	3
<a href="http://www.spoj.com/PTIT/problems/BCACM11G/">http://www.spoj.com/PTIT/problems/BCACM11G/</a>	3
<a href="http://www.spoj.com/PTIT/problems/BCACM11H/">http://www.spoj.com/PTIT/problems/BCACM11H/</a>	4
<a href="http://www.spoj.com/PTIT/problems/PTIT013A/">http://www.spoj.com/PTIT/problems/PTIT013A/</a>	2
<a href="http://www.spoj.com/PTIT/problems/PTIT013B/">http://www.spoj.com/PTIT/problems/PTIT013B/</a>	4
<a href="http://www.spoj.com/PTIT/problems/PTIT013K/">http://www.spoj.com/PTIT/problems/PTIT013K/</a>	3
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<a href="http://www.spoj.com/PTIT/problems/PTIT014B/">http://www.spoj.com/PTIT/problems/PTIT014B/</a>	3
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<a href="http://www.spoj.com/PTIT/problems/PTIT016E/">http://www.spoj.com/PTIT/problems/PTIT016E/</a>	3
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<a href="http://www.spoj.com/PTIT/problems/BCINCSEQ/">http://www.spoj.com/PTIT/problems/BCINCSEQ/</a>	2
<a href="http://www.spoj.com/PTIT/problems/BCJABUKE/">http://www.spoj.com/PTIT/problems/BCJABUKE/</a>	3
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<a href="http://www.spoj.com/PTIT/problems/BCTEST14/">http://www.spoj.com/PTIT/problems/BCTEST14/</a>	3
<a href="http://www.spoj.com/PTIT/problems/BCLINE1/">http://www.spoj.com/PTIT/problems/BCLINE1/</a>	2
<a href="http://www.spoj.com/PTIT/problems/BCCOMMAS/">http://www.spoj.com/PTIT/problems/BCCOMMAS/</a>	2
<a href="http://www.spoj.com/PTIT/problems/BCSRETAN/">http://www.spoj.com/PTIT/problems/BCSRETAN/</a>	3
<a href="http://www.spoj.com/PTIT/problems/BCZIGZAG/">http://www.spoj.com/PTIT/problems/BCZIGZAG/</a>	5
<a href="http://www.spoj.com/PTIT/problems/summer_2012/">http://www.spoj.com/PTIT/problems/summer_2012/</a>	4
<a href="http://www.spoj.com/PTIT/problems/PTITSU1D/">http://www.spoj.com/PTIT/problems/PTITSU1D/</a>	3
<a href="http://www.spoj.com/PTIT/problems/P131SUMC/">http://www.spoj.com/PTIT/problems/P131SUMC/</a>	3
<a href="http://www.spoj.com/PTIT/problems/P131SUMD/">http://www.spoj.com/PTIT/problems/P131SUMD/</a>	3
<a href="http://www.spoj.com/PTIT/problems/P131SUMH/">http://www.spoj.com/PTIT/problems/P131SUMH/</a>	2
<a href="http://www.spoj.com/PTIT/problems/P132SUMD/">http://www.spoj.com/PTIT/problems/P132SUMD/</a>	2
<a href="http://www.spoj.com/PTIT/problems/P133SUMF/">http://www.spoj.com/PTIT/problems/P133SUMF/</a>	3
<a href="http://www.spoj.com/PTIT/problems/P133SUMH/">http://www.spoj.com/PTIT/problems/P133SUMH/</a>	3
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<a href="http://www.spoj.com/PTIT/problems/P134SUMB/">http://www.spoj.com/PTIT/problems/P134SUMB/</a>	3
<a href="http://www.spoj.com/PTIT/problems/P134SUME/">http://www.spoj.com/PTIT/problems/P134SUME/</a>	3
<a href="http://www.spoj.com/PTIT/problems/P134SUMG/">http://www.spoj.com/PTIT/problems/P134SUMG/</a>	3
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<a href="http://www.spoj.com/PTIT/problems/P136SUMD/">http://www.spoj.com/PTIT/problems/P136SUMD/</a>	3
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<a href="http://www.spoj.com/PTIT/problems/P136SUMI/">http://www.spoj.com/PTIT/problems/P136SUMI/</a>	3
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<a href="http://www.spoj.com/PTIT/problems/P155SUMB/">http://www.spoj.com/PTIT/problems/P155SUMB/</a>	4
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<a href="http://www.spoj.com/PTIT/problems/P161SUMG/">http://www.spoj.com/PTIT/problems/P161SUMG/</a>	2
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<a href="http://www.spoj.com/PTIT/problems/P164SUMA/">http://www.spoj.com/PTIT/problems/P164SUMA/</a>	3
<a href="http://www.spoj.com/PTIT/problems/P164SUMB/">http://www.spoj.com/PTIT/problems/P164SUMB/</a>	4
<a href="http://www.spoj.com/PTIT/problems/P164SUMD/">http://www.spoj.com/PTIT/problems/P164SUMD/</a>	5
<a href="http://www.spoj.com/PTIT/problems/P164SUMG/">http://www.spoj.com/PTIT/problems/P164SUMG/</a>	4
<a href="http://www.spoj.com/PTIT/problems/P164SUMH/">http://www.spoj.com/PTIT/problems/P164SUMH/</a>	3
<a href="http://www.spoj.com/PTIT/problems/P164SUMI/">http://www.spoj.com/PTIT/problems/P164SUMI/</a>	3



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<a href="http://www.spoj.com/PTIT/problems/P165SUMC/">http://www.spoj.com/PTIT/problems/P165SUMC/</a>	6
<a href="http://www.spoj.com/PTIT/problems/P165SUMD/">http://www.spoj.com/PTIT/problems/P165SUMD/</a>	5
<a href="http://www.spoj.com/PTIT/problems/P165SUMI/">http://www.spoj.com/PTIT/problems/P165SUMI/</a>	3
<a href="http://www.spoj.com/PTIT/problems/P166SUMA/">http://www.spoj.com/PTIT/problems/P166SUMA/</a>	2
<a href="http://www.spoj.com/PTIT/problems/P166SUMD/">http://www.spoj.com/PTIT/problems/P166SUMD/</a>	5
<a href="http://www.spoj.com/PTIT/problems/P166SUMG/">http://www.spoj.com/PTIT/problems/P166SUMG/</a>	4
<a href="http://www.spoj.com/PTIT/problems/P166SUMH/">http://www.spoj.com/PTIT/problems/P166SUMH/</a>	4
<a href="http://www.spoj.com/PTIT/problems/P166SUMI/">http://www.spoj.com/PTIT/problems/P166SUMI/</a>	3

## 1.2 Sắp xếp và tìm kiếm

<a href="http://www.spoj.com/PTIT/problems/ALGOPRO7/">http://www.spoj.com/PTIT/problems/ALGOPRO7/</a>	2
<a href="http://www.spoj.com/PTIT/problems/PTIT123C/">http://www.spoj.com/PTIT/problems/PTIT123C/</a>	2
<a href="http://www.spoj.com/PTIT/problems/PTIT123A/">http://www.spoj.com/PTIT/problems/PTIT123A/</a>	3
<a href="http://www.spoj.com/PTIT/problems/PTIT125C/">http://www.spoj.com/PTIT/problems/PTIT125C/</a>	2
<a href="http://www.spoj.com/PTIT/problems/PTIT125L/">http://www.spoj.com/PTIT/problems/PTIT125L/</a>	4
<a href="http://www.spoj.com/PTIT/problems/PTIT126D/">http://www.spoj.com/PTIT/problems/PTIT126D/</a>	1
<a href="http://www.spoj.com/PTIT/problems/PTIT126J/">http://www.spoj.com/PTIT/problems/PTIT126J/</a>	3
<a href="http://www.spoj.com/PTIT/problems/PTIT127D/">http://www.spoj.com/PTIT/problems/PTIT127D/</a>	4
<a href="http://www.spoj.com/PTIT/problems/REPSTR/">http://www.spoj.com/PTIT/problems/REPSTR/</a>	3
<a href="http://www.spoj.com/PTIT/problems/YOUNGCLA/">http://www.spoj.com/PTIT/problems/YOUNGCLA/</a>	2
<a href="http://www.spoj.com/PTIT/problems/SCRAMLET/">http://www.spoj.com/PTIT/problems/SCRAMLET/</a>	5
<a href="http://www.spoj.com/PTIT/problems/PTIT137D/">http://www.spoj.com/PTIT/problems/PTIT137D/</a>	4
<a href="http://www.spoj.com/PTIT/problems/PTIT138B/">http://www.spoj.com/PTIT/problems/PTIT138B/</a>	4
<a href="http://www.spoj.com/PTIT/problems/P141PROG/">http://www.spoj.com/PTIT/problems/P141PROG/</a>	6
<a href="http://www.spoj.com/PTIT/problems/P142PROD/">http://www.spoj.com/PTIT/problems/P142PROD/</a>	8
<a href="http://www.spoj.com/PTIT/problems/P144PROD/">http://www.spoj.com/PTIT/problems/P144PROD/</a>	3
<a href="http://www.spoj.com/PTIT/problems/P152PROB/">http://www.spoj.com/PTIT/problems/P152PROB/</a>	2
<a href="http://www.spoj.com/PTIT/problems/P156PROG/">http://www.spoj.com/PTIT/problems/P156PROG/</a>	4
<a href="http://www.spoj.com/PTIT/problems/P162PROA/">http://www.spoj.com/PTIT/problems/P162PROA/</a>	4
<a href="http://www.spoj.com/PTIT/problems/P166PROD/">http://www.spoj.com/PTIT/problems/P166PROD/</a>	3
<a href="http://www.spoj.com/PTIT/problems/P17QPROB/">http://www.spoj.com/PTIT/problems/P17QPROB/</a>	4
<a href="http://www.spoj.com/PTIT/problems/P17QPROH/">http://www.spoj.com/PTIT/problems/P17QPROH/</a>	3
<a href="http://www.spoj.com/PTIT/problems/P171PROD/">http://www.spoj.com/PTIT/problems/P171PROD/</a>	4
<a href="http://www.spoj.com/PTIT/problems/P171PROE/">http://www.spoj.com/PTIT/problems/P171PROE/</a>	4
<a href="http://www.spoj.com/PTIT/problems/P171PROF/">http://www.spoj.com/PTIT/problems/P171PROF/</a>	3
<a href="http://www.spoj.com/PTIT/problems/P173PROE/">http://www.spoj.com/PTIT/problems/P173PROE/</a>	4
<a href="http://www.spoj.com/PTIT/problems/P174PROF/">http://www.spoj.com/PTIT/problems/P174PROF/</a>	3
<a href="http://www.spoj.com/PTIT/problems/P175PROG/">http://www.spoj.com/PTIT/problems/P175PROG/</a>	4
<a href="http://www.spoj.com/PTIT/problems/BCFRIEND/">http://www.spoj.com/PTIT/problems/BCFRIEND/</a>	4
<a href="http://www.spoj.com/PTIT/problems/BCLUCKY/">http://www.spoj.com/PTIT/problems/BCLUCKY/</a>	4
<a href="http://www.spoj.com/PTIT/problems/BCMARA/">http://www.spoj.com/PTIT/problems/BCMARA/</a>	3
<a href="http://www.spoj.com/PTIT/problems/P131SUMF/">http://www.spoj.com/PTIT/problems/P131SUMF/</a>	5
<a href="http://www.spoj.com/PTIT/problems/P145SUMG/">http://www.spoj.com/PTIT/problems/P145SUMG/</a>	5
<a href="http://www.spoj.com/PTIT/problems/P153SUME/">http://www.spoj.com/PTIT/problems/P153SUME/</a>	5



### 1.3 Giải thuật Tham lam

<a href="http://www.spoj.com/PTIT/problems/BCSEQ1/">http://www.spoj.com/PTIT/problems/BCSEQ1/</a>	2
<a href="http://www.spoj.com/PTIT/problems/ALGOPRO11/">http://www.spoj.com/PTIT/problems/ALGOPRO11/</a>	4
<a href="http://www.spoj.com/PTIT/problems/BCATM3/">http://www.spoj.com/PTIT/problems/BCATM3/</a>	3
<a href="http://www.spoj.com/PTIT/problems/PTIT122F/">http://www.spoj.com/PTIT/problems/PTIT122F/</a>	3
<a href="http://www.spoj.com/PTIT/problems/PTIT122G/">http://www.spoj.com/PTIT/problems/PTIT122G/</a>	4
<a href="http://www.spoj.com/PTIT/problems/PTIT125B/">http://www.spoj.com/PTIT/problems/PTIT125B/</a>	4
<a href="http://www.spoj.com/PTIT/problems/PTIT125I/">http://www.spoj.com/PTIT/problems/PTIT125I/</a>	2
<a href="http://www.spoj.com/PTIT/problems/PTIT126C/">http://www.spoj.com/PTIT/problems/PTIT126C/</a>	3
<a href="http://www.spoj.com/PTIT/problems/PTIT127C/">http://www.spoj.com/PTIT/problems/PTIT127C/</a>	2
<a href="http://www.spoj.com/PTIT/problems/CLUMSYCO/">http://www.spoj.com/PTIT/problems/CLUMSYCO/</a>	4
<a href="http://www.spoj.com/PTIT/problems/PTIT136C/">http://www.spoj.com/PTIT/problems/PTIT136C/</a>	2
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<a href="http://www.spoj.com/PTIT/problems/P144PROB/">http://www.spoj.com/PTIT/problems/P144PROB/</a>	6
<a href="http://www.spoj.com/PTIT/problems/P144PROH/">http://www.spoj.com/PTIT/problems/P144PROH/</a>	6
<a href="http://www.spoj.com/PTIT/problems/P146PROE/">http://www.spoj.com/PTIT/problems/P146PROE/</a>	5
<a href="http://www.spoj.com/PTIT/problems/P151PROE/">http://www.spoj.com/PTIT/problems/P151PROE/</a>	5
<a href="http://www.spoj.com/PTIT/problems/P152PROD/">http://www.spoj.com/PTIT/problems/P152PROD/</a>	5
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<a href="http://www.spoj.com/PTIT/problems/P17QPROE/">http://www.spoj.com/PTIT/problems/P17QPROE/</a>	4
<a href="http://www.spoj.com/PTIT/problems/P173PROF/">http://www.spoj.com/PTIT/problems/P173PROF/</a>	5
<a href="http://www.spoj.com/PTIT/problems/P175PROA/">http://www.spoj.com/PTIT/problems/P175PROA/</a>	5
<a href="http://www.spoj.com/PTIT/problems/P178PROI/">http://www.spoj.com/PTIT/problems/P178PROI/</a>	5
<a href="http://www.spoj.com/PTIT/problems/BCACM11C/">http://www.spoj.com/PTIT/problems/BCACM11C/</a>	5
<a href="http://www.spoj.com/PTIT/problems/PTIT013J/">http://www.spoj.com/PTIT/problems/PTIT013J/</a>	8
<a href="http://www.spoj.com/PTIT/problems/PTIT016D/">http://www.spoj.com/PTIT/problems/PTIT016D/</a>	3
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<a href="http://www.spoj.com/PTIT/problems/BCSODA/">http://www.spoj.com/PTIT/problems/BCSODA/</a>	5
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<a href="http://www.spoj.com/PTIT/problems/PTITSU1B/">http://www.spoj.com/PTIT/problems/PTITSU1B/</a>	7
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<a href="http://www.spoj.com/PTIT/problems/P131SUMB/">http://www.spoj.com/PTIT/problems/P131SUMB/</a>	8
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<a href="http://www.spoj.com/PTIT/problems/P154SUMA/">http://www.spoj.com/PTIT/problems/P154SUMA/</a>	7
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<a href="http://www.spoj.com/PTIT/problems/P162SUMI/">http://www.spoj.com/PTIT/problems/P162SUMI/</a>	4
<a href="http://www.spoj.com/PTIT/problems/P163SUMD/">http://www.spoj.com/PTIT/problems/P163SUMD/</a>	5

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## 1.4 Quay lui

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<a href="http://www.spoj.com/PTIT/problems/BCATM/">http://www.spoj.com/PTIT/problems/BCATM/</a>	3 ✓
<a href="http://www.spoj.com/PTIT/problems/BCCHIANHOM/">http://www.spoj.com/PTIT/problems/BCCHIANHOM/</a>	4 ✓
<a href="http://www.spoj.com/PTIT/problems/BCATM2/">http://www.spoj.com/PTIT/problems/BCATM2/</a>	3 ✓
<a href="http://www.spoj.com/PTIT/problems/BCTSP/">http://www.spoj.com/PTIT/problems/BCTSP/</a>	3
<a href="http://www.spoj.com/PTIT/problems/PTIT121B/">http://www.spoj.com/PTIT/problems/PTIT121B/</a>	3 ✓
<a href="http://www.spoj.com/PTIT/problems/PTIT124F/">http://www.spoj.com/PTIT/problems/PTIT124F/</a>	4 ✓
<a href="http://www.spoj.com/PTIT/problems/PTIT134J/">http://www.spoj.com/PTIT/problems/PTIT134J/</a>	6
<a href="http://www.spoj.com/PTIT/problems/PTIT135E/">http://www.spoj.com/PTIT/problems/PTIT135E/</a>	5
<a href="http://www.spoj.com/PTIT/problems/PTIT137C/">http://www.spoj.com/PTIT/problems/PTIT137C/</a>	9
<a href="http://www.spoj.com/PTIT/problems/PTIT137F/">http://www.spoj.com/PTIT/problems/PTIT137F/</a>	6
<a href="http://www.spoj.com/PTIT/problems/P142PROG/">http://www.spoj.com/PTIT/problems/P142PROG/</a>	5
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<a href="http://www.spoj.com/PTIT/problems/PTIT014G/">http://www.spoj.com/PTIT/problems/PTIT014G/</a>	4
<a href="http://www.spoj.com/PTIT/problems/BCCOW/">http://www.spoj.com/PTIT/problems/BCCOW/</a>	3 ✓
<a href="http://www.spoj.com/PTIT/problems/BCCOLDWA/">http://www.spoj.com/PTIT/problems/BCCOLDWA/</a>	5
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<a href="http://www.spoj.com/PTIT/problems/PTITSU1C/">http://www.spoj.com/PTIT/problems/PTITSU1C/</a>	3 ✓
<a href="http://www.spoj.com/PTIT/problems/P135SUMG/">http://www.spoj.com/PTIT/problems/P135SUMG/</a>	6
<a href="http://www.spoj.com/PTIT/problems/P142SUME/">http://www.spoj.com/PTIT/problems/P142SUME/</a>	4 ✓
<a href="http://www.spoj.com/PTIT/problems/P153SUMB/">http://www.spoj.com/PTIT/problems/P153SUMB/</a>	5
<a href="http://www.spoj.com/PTIT/problems/P163SUME/">http://www.spoj.com/PTIT/problems/P163SUME/</a>	5

## 1.5 Quy hoạch động

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

<a href="http://www.spoj.com/PTIT/problems/VLPT12A/">http://www.spoj.com/PTIT/problems/VLPT12A/</a>	4
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<a href="http://www.spoj.com/PTIT/problems/BCLULIST/">http://www.spoj.com/PTIT/problems/BCLULIST/</a>	4
<a href="http://www.spoj.com/PTIT/problems/BCSTR/">http://www.spoj.com/PTIT/problems/BCSTR/</a>	3
<a href="http://www.spoj.com/PTIT/problems/BCCAITUI/">http://www.spoj.com/PTIT/problems/BCCAITUI/</a>	3
<a href="http://www.spoj.com/PTIT/problems/PTIT121D/">http://www.spoj.com/PTIT/problems/PTIT121D/</a>	3
<a href="http://www.spoj.com/PTIT/problems/PTIT122H/">http://www.spoj.com/PTIT/problems/PTIT122H/</a>	6
<a href="http://www.spoj.com/PTIT/problems/PTIT123H/">http://www.spoj.com/PTIT/problems/PTIT123H/</a>	4
<a href="http://www.spoj.com/PTIT/problems/PTIT123D/">http://www.spoj.com/PTIT/problems/PTIT123D/</a>	3
<a href="http://www.spoj.com/PTIT/problems/PTIT125E/">http://www.spoj.com/PTIT/problems/PTIT125E/</a>	4
<a href="http://www.spoj.com/PTIT/problems/PTIT125F/">http://www.spoj.com/PTIT/problems/PTIT125F/</a>	2
<a href="http://www.spoj.com/PTIT/problems/PTIT125K/">http://www.spoj.com/PTIT/problems/PTIT125K/</a>	7

<a href="http://www.spoj.com/PTIT/problems/PTIT126G/">http://www.spoj.com/PTIT/problems/PTIT126G/</a>	3
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<a href="http://www.spoj.com/PTIT/problems/PTIT127H/">http://www.spoj.com/PTIT/problems/PTIT127H/</a>	5
<a href="http://www.spoj.com/PTIT/problems/STRBALAN/">http://www.spoj.com/PTIT/problems/STRBALAN/</a>	4
<a href="http://www.spoj.com/PTIT/problems/XEPBONG/">http://www.spoj.com/PTIT/problems/XEPBONG/</a>	5
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<a href="http://www.spoj.com/PTIT/problems/P146SUME/">http://www.spoj.com/PTIT/problems/P146SUME/</a>	7
<a href="http://www.spoj.com/PTIT/problems/P153SUMD/">http://www.spoj.com/PTIT/problems/P153SUMD/</a>	5
<a href="http://www.spoj.com/PTIT/problems/P154SUMD/">http://www.spoj.com/PTIT/problems/P154SUMD/</a>	5
<a href="http://www.spoj.com/PTIT/problems/P155SUMA/">http://www.spoj.com/PTIT/problems/P155SUMA/</a>	6
<a href="http://www.spoj.com/PTIT/problems/P156SUMC/">http://www.spoj.com/PTIT/problems/P156SUMC/</a>	10
<a href="http://www.spoj.com/PTIT/problems/P156SUMG/">http://www.spoj.com/PTIT/problems/P156SUMG/</a>	6
<a href="http://www.spoj.com/PTIT/problems/P161SUME/">http://www.spoj.com/PTIT/problems/P161SUME/</a>	6
<a href="http://www.spoj.com/PTIT/problems/P161SUMF/">http://www.spoj.com/PTIT/problems/P161SUMF/</a>	6
<a href="http://www.spoj.com/PTIT/problems/P162SUMJ/">http://www.spoj.com/PTIT/problems/P162SUMJ/</a>	7
<a href="http://www.spoj.com/PTIT/problems/P165SUME/">http://www.spoj.com/PTIT/problems/P165SUME/</a>	6
<a href="http://www.spoj.com/PTIT/problems/P166SUME/">http://www.spoj.com/PTIT/problems/P166SUME/</a>	10
<a href="http://www.spoj.com/PTIT/problems/P166SUMF/">http://www.spoj.com/PTIT/problems/P166SUMF/</a>	7

### 1.5.2 Quy hoạch động trạng thái

<a href="http://www.spoj.com/PTIT/problems/P141PROI/">http://www.spoj.com/PTIT/problems/P141PROI/</a>	7
<a href="http://www.spoj.com/PTIT/problems/P167PROF/">http://www.spoj.com/PTIT/problems/P167PROF/</a>	6
<a href="http://www.spoj.com/PTIT/problems/P173PROB/">http://www.spoj.com/PTIT/problems/P173PROB/</a>	7
<a href="http://www.spoj.com/PTIT/problems/P179PROH/">http://www.spoj.com/PTIT/problems/P179PROH/</a>	6
<a href="http://www.spoj.com/PTIT/problems/CO060715/">http://www.spoj.com/PTIT/problems/CO060715/</a>	6
<a href="http://www.spoj.com/PTIT/problems/P151SUMC/">http://www.spoj.com/PTIT/problems/P151SUMC/</a>	7

<a href="http://www.spoj.com/PTIT/problems/P151SUMD/">http://www.spoj.com/PTIT/problems/P151SUMD/</a>	6
<a href="http://www.spoj.com/PTIT/problems/P163SUMC/">http://www.spoj.com/PTIT/problems/P163SUMC/</a>	8
<a href="http://www.spoj.com/PTIT/problems/P165SUMF/">http://www.spoj.com/PTIT/problems/P165SUMF/</a>	8

### 1.5.3 Quy hoạch động trên cây

<a href="http://www.spoj.com/PTIT/problems/PTIT128D/">http://www.spoj.com/PTIT/problems/PTIT128D/</a>	6
<a href="http://www.spoj.com/PTIT/problems/P151PROD/">http://www.spoj.com/PTIT/problems/P151PROD/</a>	6
<a href="http://www.spoj.com/PTIT/problems/P152PROC/">http://www.spoj.com/PTIT/problems/P152PROC/</a>	6
<a href="http://www.spoj.com/PTIT/problems/P155PROJ/">http://www.spoj.com/PTIT/problems/P155PROJ/</a>	9
<a href="http://www.spoj.com/PTIT/problems/P176PROD/">http://www.spoj.com/PTIT/problems/P176PROD/</a>	8
<a href="http://www.spoj.com/PTIT/problems/BCVACATI/">http://www.spoj.com/PTIT/problems/BCVACATI/</a>	6
<a href="http://www.spoj.com/PTIT/problems/P156SUMB/">http://www.spoj.com/PTIT/problems/P156SUMB/</a>	7

## 1.6. Xử lý xâu

### 1.6.1 Xử lý xâu cơ bản

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

<a href="http://www.spoj.com/PTIT/problems/P163SUMG/">http://www.spoj.com/PTIT/problems/P163SUMG/</a>	4
<a href="http://www.spoj.com/PTIT/problems/P165SUMH/">http://www.spoj.com/PTIT/problems/P165SUMH/</a>	4

### 1.6.2 Tìm kiếm mẫu (KMP, Hash, Z)

<a href="http://www.spoj.com/PTIT/problems/PTIT137I/">http://www.spoj.com/PTIT/problems/PTIT137I/</a>	7
<a href="http://www.spoj.com/PTIT/problems/P141PROH/">http://www.spoj.com/PTIT/problems/P141PROH/</a>	9
<a href="http://www.spoj.com/PTIT/problems/P172PROC/">http://www.spoj.com/PTIT/problems/P172PROC/</a>	5
<a href="http://www.spoj.com/PTIT/problems/P176PROC/">http://www.spoj.com/PTIT/problems/P176PROC/</a>	6
<a href="http://www.spoj.com/PTIT/problems/P176PROE/">http://www.spoj.com/PTIT/problems/P176PROE/</a>	5
<a href="http://www.spoj.com/PTIT/problems/PTIT013E/">http://www.spoj.com/PTIT/problems/PTIT013E/</a>	6
<a href="http://www.spoj.com/PTIT/problems/P142SUMD/">http://www.spoj.com/PTIT/problems/P142SUMD/</a>	6
<a href="http://www.spoj.com/PTIT/problems/P153SUMA/">http://www.spoj.com/PTIT/problems/P153SUMA/</a>	6
<a href="http://www.spoj.com/PTIT/problems/P156SUME/">http://www.spoj.com/PTIT/problems/P156SUME/</a>	5
<a href="http://www.spoj.com/PTIT/problems/P162SUMB/">http://www.spoj.com/PTIT/problems/P162SUMB/</a>	6

### 1.6.3 Trie

<a href="http://www.spoj.com/PTIT/problems/P166PROJ/">http://www.spoj.com/PTIT/problems/P166PROJ/</a>	9
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### 1.6.4 Suffix tree

<a href="http://www.spoj.com/PTIT/problems/PTIT015J/">http://www.spoj.com/PTIT/problems/PTIT015J/</a>	8
<a href="http://www.spoj.com/PTIT/problems/P152SUMJ/">http://www.spoj.com/PTIT/problems/P152SUMJ/</a>	8

## 1.7. Toán học

### 1.7.1 Số học

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



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



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

### 1.7.2 Hình học

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

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

### 1.7.3 Tổ hợp

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

<a href="http://www.spoj.com/PTIT/problems/P155SUME/">http://www.spoj.com/PTIT/problems/P155SUME/</a>	7
<a href="http://www.spoj.com/PTIT/problems/P164SUMF/">http://www.spoj.com/PTIT/problems/P164SUMF/</a>	8

#### 1.7.4 Các bài toán trên ma trận

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

#### 1.7.5 Đại số

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

#### 1.7.6 Lý thuyết trò chơi

<a href="http://www.spoj.com/PTIT/problems/VLPT12F/">http://www.spoj.com/PTIT/problems/VLPT12F/</a>	5
<a href="http://www.spoj.com/PTIT/problems/PTIT128G/">http://www.spoj.com/PTIT/problems/PTIT128G/</a>	10
<a href="http://www.spoj.com/PTIT/problems/PTIT133D/">http://www.spoj.com/PTIT/problems/PTIT133D/</a>	4
<a href="http://www.spoj.com/PTIT/problems/PTIT134A/">http://www.spoj.com/PTIT/problems/PTIT134A/</a>	4
<a href="http://www.spoj.com/PTIT/problems/P143PROH/">http://www.spoj.com/PTIT/problems/P143PROH/</a>	6
<a href="http://www.spoj.com/PTIT/problems/P147PROI/">http://www.spoj.com/PTIT/problems/P147PROI/</a>	3
<a href="http://www.spoj.com/PTIT/problems/P151PROC/">http://www.spoj.com/PTIT/problems/P151PROC/</a>	10
<a href="http://www.spoj.com/PTIT/problems/GAMEBR/">http://www.spoj.com/PTIT/problems/GAMEBR/</a>	5

<a href="http://www.spoj.com/PTIT/problems/P155SUMG/">http://www.spoj.com/PTIT/problems/P155SUMG/</a>	4
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## PHẦN 2: CẤU TRÚC DỮ LIỆU

### 2.1. Ngăn xếp

<a href="http://www.spoj.com/PTIT/problems/PTIT123J/">http://www.spoj.com/PTIT/problems/PTIT123J/</a>	3
<a href="http://www.spoj.com/PTIT/problems/PTIT124C/">http://www.spoj.com/PTIT/problems/PTIT124C/</a>	4
<a href="http://www.spoj.com/PTIT/problems/PTIT127B/">http://www.spoj.com/PTIT/problems/PTIT127B/</a>	5
<a href="http://www.spoj.com/PTIT/problems/P155PROD/">http://www.spoj.com/PTIT/problems/P155PROD/</a>	6
<a href="http://www.spoj.com/PTIT/problems/P161PROJ/">http://www.spoj.com/PTIT/problems/P161PROJ/</a>	6
<a href="http://www.spoj.com/PTIT/problems/P177PROC/">http://www.spoj.com/PTIT/problems/P177PROC/</a>	5
<a href="http://www.spoj.com/PTIT/problems/BCRECT/">http://www.spoj.com/PTIT/problems/BCRECT/</a>	5
<a href="http://www.spoj.com/PTIT/problems/BCTEST17/">http://www.spoj.com/PTIT/problems/BCTEST17/</a>	5
<a href="http://www.spoj.com/PTIT/problems/P131SUMG/">http://www.spoj.com/PTIT/problems/P131SUMG/</a>	5
<a href="http://www.spoj.com/PTIT/problems/P151SUME/">http://www.spoj.com/PTIT/problems/P151SUME/</a>	6

### 2.2. Hàng đợi

<a href="http://www.spoj.com/PTIT/problems/GOODFRIE/">http://www.spoj.com/PTIT/problems/GOODFRIE/</a>	4
<a href="http://www.spoj.com/PTIT/problems/P142PROB/">http://www.spoj.com/PTIT/problems/P142PROB/</a>	9
<a href="http://www.spoj.com/PTIT/problems/P152SUMB/">http://www.spoj.com/PTIT/problems/P152SUMB/</a>	7

### 2.3. Đồ thị

#### 2.3.1 DFS, BFS

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

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

### 2.3.2 Chu trình Euler

<a href="http://www.spoj.com/PTIT/problems/PTIT015C/">http://www.spoj.com/PTIT/problems/PTIT015C/</a>	7
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### 2.3.3 Disjoint set

<a href="http://www.spoj.com/PTIT/problems/PTIT133I/">http://www.spoj.com/PTIT/problems/PTIT133I/</a>	7
<a href="http://www.spoj.com/PTIT/problems/P179PROI/">http://www.spoj.com/PTIT/problems/P179PROI/</a>	6
<a href="http://www.spoj.com/PTIT/problems/BCBIN/">http://www.spoj.com/PTIT/problems/BCBIN/</a>	5
<a href="http://www.spoj.com/PTIT/problems/P135SUMJ/">http://www.spoj.com/PTIT/problems/P135SUMJ/</a>	7
<a href="http://www.spoj.com/PTIT/problems/P151SUMJ/">http://www.spoj.com/PTIT/problems/P151SUMJ/</a>	6

### 2.3.4 Cây bao trùm nhỏ nhất

<a href="http://www.spoj.com/PTIT/problems/P146PROB/">http://www.spoj.com/PTIT/problems/P146PROB/</a>	6
<a href="http://www.spoj.com/PTIT/problems/P146SUMI/">http://www.spoj.com/PTIT/problems/P146SUMI/</a>	8

### 2.3.5 Đường đi ngắn nhất

<a href="http://www.spoj.com/PTIT/problems/PTIT124I/">http://www.spoj.com/PTIT/problems/PTIT124I/</a>	4
<a href="http://www.spoj.com/PTIT/problems/DISPAST/">http://www.spoj.com/PTIT/problems/DISPAST/</a>	8
<a href="http://www.spoj.com/PTIT/problems/PTIT135D/">http://www.spoj.com/PTIT/problems/PTIT135D/</a>	5
<a href="http://www.spoj.com/PTIT/problems/P146PROJ/">http://www.spoj.com/PTIT/problems/P146PROJ/</a>	6
<a href="http://www.spoj.com/PTIT/problems/PTIT014H/">http://www.spoj.com/PTIT/problems/PTIT014H/</a>	8
<a href="http://www.spoj.com/PTIT/problems/P144SUMH/">http://www.spoj.com/PTIT/problems/P144SUMH/</a>	9
<a href="http://www.spoj.com/PTIT/problems/P146SUMC/">http://www.spoj.com/PTIT/problems/P146SUMC/</a>	6

### 2.3.6 LCA

<a href="http://www.spoj.com/PTIT/problems/P144PROA/">http://www.spoj.com/PTIT/problems/P144PROA/</a>	7
<a href="http://www.spoj.com/PTIT/problems/P153PROH/">http://www.spoj.com/PTIT/problems/P153PROH/</a>	8
<a href="http://www.spoj.com/PTIT/problems/P162PROJ/">http://www.spoj.com/PTIT/problems/P162PROJ/</a>	8
<a href="http://www.spoj.com/PTIT/problems/P164PROJ/">http://www.spoj.com/PTIT/problems/P164PROJ/</a>	9
<a href="http://www.spoj.com/PTIT/problems/PTIT016I/">http://www.spoj.com/PTIT/problems/PTIT016I/</a>	9
<a href="http://www.spoj.com/PTIT/problems/P156SUMD/">http://www.spoj.com/PTIT/problems/P156SUMD/</a>	8

### 2.3.7 SAT

<a href="http://www.spoj.com/PTIT/problems/P146SUMJ/">http://www.spoj.com/PTIT/problems/P146SUMJ/</a>	10
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### 2.3.8 Luồng cực đại

<a href="http://www.spoj.com/PTIT/problems/PTIT126B/">http://www.spoj.com/PTIT/problems/PTIT126B/</a>	10
<a href="http://www.spoj.com/PTIT/problems/PTIT128C/">http://www.spoj.com/PTIT/problems/PTIT128C/</a>	9
<a href="http://www.spoj.com/PTIT/problems/P142PROJ/">http://www.spoj.com/PTIT/problems/P142PROJ/</a>	7
<a href="http://www.spoj.com/PTIT/problems/P144PROA/">http://www.spoj.com/PTIT/problems/P144PROA/</a>	6
<a href="http://www.spoj.com/PTIT/problems/P174PROC/">http://www.spoj.com/PTIT/problems/P174PROC/</a>	7
<a href="http://www.spoj.com/PTIT/problems/PTIT015G/">http://www.spoj.com/PTIT/problems/PTIT015G/</a>	8
<a href="http://www.spoj.com/PTIT/problems/PTIT017E/">http://www.spoj.com/PTIT/problems/PTIT017E/</a>	7
<a href="http://www.spoj.com/PTIT/problems/P164SUMJ/">http://www.spoj.com/PTIT/problems/P164SUMJ/</a>	9



## 2.4. Binary Search Tree

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

## 2.5. Các cấu trúc cây nâng cao

### 2.5.1 Cây IT và BIT

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

<a href="http://www.spoj.com/PTIT/problems/P143SUMD/">http://www.spoj.com/PTIT/problems/P143SUMD/</a>	6
<a href="http://www.spoj.com/PTIT/problems/P146SUMD/">http://www.spoj.com/PTIT/problems/P146SUMD/</a>	6
<a href="http://www.spoj.com/PTIT/problems/P154SUMB/">http://www.spoj.com/PTIT/problems/P154SUMB/</a>	6
<a href="http://www.spoj.com/PTIT/problems/P154SUMJ/">http://www.spoj.com/PTIT/problems/P154SUMJ/</a>	8
<a href="http://www.spoj.com/PTIT/problems/P156SUMI/">http://www.spoj.com/PTIT/problems/P156SUMI/</a>	8
<a href="http://www.spoj.com/PTIT/problems/P161SUMJ/">http://www.spoj.com/PTIT/problems/P161SUMJ/</a>	8

### 2.5.2 Other

<a href="http://www.spoj.com/PTIT/problems/BCTEST18/">http://www.spoj.com/PTIT/problems/BCTEST18/</a>	9
<a href="http://www.spoj.com/PTIT/problems/P143SUMJ/">http://www.spoj.com/PTIT/problems/P143SUMJ/</a>	10
<a href="http://www.spoj.com/PTIT/problems/P144SUMJ/">http://www.spoj.com/PTIT/problems/P144SUMJ/</a>	10
<a href="http://www.spoj.com/PTIT/problems/P145SUMJ/">http://www.spoj.com/PTIT/problems/P145SUMJ/</a>	10