

Problem	Topic	Contest	ID	Arup's Difficulty
Suspension Bridges	Binary Search	2017 NAQ	suspensionbridges	3
Alehouse	Binary Search	2019 Bergen Open	alehouse	4
Opening Ceremony	Binary Search	2014 NCPC	ceremony	4
Kayaking Trip	Binary Search	2017 NCPC	kayaking	4
Reconnaissance	Binary Search	2014 Chicago	reconnaissance	5
Ghostbusters 2	Binary Search	2016 MCPC	ghostbusters	6
Bread Sorting	BIT	2012 NCPC	bread	6
Mega Inversions	BIT	2011 NCPC	megainversions	6
Juggler	BIT	2012 Chicago	juggler	6
Exam	Brute Force	2018 MCPC	exam	2
Heir's Dilemma	Brute Force	2018 MCPC	heirsdilemma	2
Boiling Vegetables	Brute Force	2013 NCPC	vegetables	4
Card Hand Sorting	Brute Force	2016 NCPC	cardhand	4
Dance Recital	Brute Force	2015 MCPC	dancerecital	4
Infiltration	Brute Force	2012 NCPC	infiltration	5
Kitchen Measurements	Brute Force	2015 MCPC	kitchen	5
Construction Toy	Brute Force	2016 MCPC	toy	5
Gold Bandits	Brute Force	2014 Chicago	goldbandits	6
Basin City Surveillance	Brute Force	2014 NCPC	basincity	8
Mosaic	Brute Force	2015 MCPC	mosaic	8
Jumbled String	Constructive	2018 NCPC	jumbledstring	5
Game Scheduling	Constructive	2018 NCPC	gamescheduling	8
Best Relay Team	Custom Sorting	2017 NCPC	bestrelayteam	2
Missing Numbers	Data Structs	2019 NAQ	missingnumbers	1
No Duplicates	Data Structs	2017 MCPC	nodup	1
Binary search tree	Data Structs	Croatian Open 2008	bst	3
Summer Trip	Data Structs	2019 NAQ	summertrip	3
Cookie Selection	Data Structs	2012 NCPC	cookieselection	4
Galactic Collegiate Programming	Data Structs	2017 NCPC	gcpc	4
Bingo Ties	Data Structs	2018 NAQ	bingoties	4
Estimation	Data Structs	2012 Chicago	estimation	4

Artwork	Disjoint Set	2016 NCPC	artwork	6
Bag of Tiles	DP 1	Swedish ICPC Qualifier 2009	bagoftiles	4
Robots on a Grid	DP 1	2011 NCPC	robotsonagrid	4
Narrow Art Gallery	DP 1	2014 NAQ	narrowartgallery	4
Cutting Brownies	DP 1	2015 NAQ	cuttingbrownies	4
Nine Packs	DP 1	2016 NAQ	ninepacks	4
Canonical Coins	DP 1	2017 NAQ	canonical	4
Using Digits	DP 1	2020 NAQ	usingdigits	4
Word Clouds Revisited	DP 1	2015 MCPC	wordclouds	4
A Walk Through the Forest	DP 1	Waterloo 2005	walkforest	5
Outing	DP 1	2014 NCPC	outing	5
Floppy Music	DP 1	2015 NCPC	floppy	5
Is	DP 1	2011 NCPC	is	5
Private Space	DP 1	2011 NCPC	privatespace	5
Ebony and Ivory	DP 1	2018 NAQ	ebonyandivory	5
Peg Game For Two	DP 1	2018 NAQ	peggame	5
Pyro Tubes	DP 1	2015 MCPC	pyro	5
King's Colors	DP 1	2018 NCPC	kingscolors	5
Safe Passage	DP 2	2015 NAQ	safeassage	6
Running Routes	DP 2	2019 NAQ	runningroutes	6
Big Data	DP 2	ProgNova 2016	data	6
Greetings!	DP 2	NAIPC 2016	greetings	6
Altruistic Ampphibians	DP 2	2018 NCPC	altruisticamphibians	6
Hero Power	DP 2	2015 NCPC	heropower	7
Airport Coffee	DP 2	2017 NCPC	airportcoffee	7
Cat and Mice	DP 2	2017 NAQ	catandmice	7
Longest Life	DP 2	2018 NAQ	longestlife	7
Super Mario 169	DP 2	2014 Chicago	supermario169	7
Covered Walkway	DP 2	2012 Chicago	coveredwalkway	8
Extensive Or	DP 2	2015 Chicago	extensiveor	8
String Stretching	DP 2	2015 Chicago	stretching	8

Just a Quiz	DP 3	2015 NCPC	justaquiz	8
iCar	DP 3	2015 NCPC	icar	9
Cheats	DP 3	2014 Chicago	cheats	9
Alex and Barb	Game Theory	Calgary 2020	alexandbarb	3
Color Walk	Game Theory	2014 NAQ	colorwalk	6
Goat Rope	Geometry 1	2018 MCPC	goatrope	2
Square Deal	Geometry 1	2016 MCPC	squaredeal	3
Pesky Mosquitoes	Geometry 1	2014 NAQ	mosquitoes	5
Undetected	Geometry 1	2015 NAQ	undetected	5
3D Printer	Geometry 1	2013 Chicago	threedprinter	5
Windy Path	Geometry 1	2016 MCPC	windypath	5
Keeping the Dogs Apart	Geometry 1	2016 NCPC	dogs	6
Unusual Darts	Geometry 1	2016 NAQ	unusualdarts	6
Birthday Cake	Geometry 1	2017 NAQ	birthdaycake	6
Fruit Slicer	Geometry 1	2018 NAQ	fruitslicer	6
The Red Gem	Geometry 1	2012 Chicago	redgem	6
Galactic Warlords	Geometry 1	2012 NCPC	galactic	6
Goblin Garden Guards	Geometry 1	2015 NCPC	goblingardenguards	6
Robert Hood	Geometry 2	2013 NCPC	roberthood	5
Yikes Bikes	Geometry 2	2014 NAQ	yikes	7
Drawing Circles	Geometry 2	2020 NAQ	drawingcircles	7
Mobilization	Geometry 2	2018 MCPC	mobilization	7
How many squares?	Geometry 2	2014 NCPC	squares	7
Canyon Mapping	Geometry 2	2015 Chicago	canyon	8
Hubtown	Geometry 2	2017 NCPC	hubtown	8
Banjo	Geometry 2	2014 Chicago	banjo	9
Area of Effect	Geometry 2	2015 Chicago	areaofeffect	9
Firing the Phaser	Geometry 2	2018 NCPC	firingphaser	9
The Worm in the Apple	Geometry 2	2012 Chicago	worminapple	9
BAAS	Graph	LIU Coding Challenge	baas	4
Horror List	Graph	2012 NCPC	horror	4

Elevator Trouble	Graph	2011 NCPC	elevatortrouble	4
Car Trouble	Graph	2011 NCPC	cartrouble	4
Trapezoid Walkway	Graph	2013 NAQ	walkway	4
Island Buses	Graph	2013 NAQ	island	4
Human Cannonball Run	Graph	2014 NAQ	humancannonball	4
Units	Graph	2014 NAQ	units	4
Cantina of Babel	Graph	2015 NAQ	cantinaofbabel	4
Torn to Pieces	Graph	2015 NAQ	torn2pieces	4
Big Truck	Graph	2016 NAQ	bigtruck	4
As Easy as CAB	Graph	2016 MCPC	easyascab	4
Honey Heist	Graph	2017 MCPC	honeyheist	4
Faulty Robot	Graph	2017 MCPC	faultyrobot	4
Treehouses	Graph	2018 MCPC	treehouses	4
Illiteracy	Graph	2018 MCPC	illiteracy	4
Ecodriving	Graph	2012 NCPC	ecodriving	5
Amanda's Lounges	Graph	2014 NCPC	amanda	5
Adjoin the Networks	Graph	2015 NCPC	adjoin	5
Import Spaghetti	Graph	2017 NCPC	importspaghetti	5
Bumped	Graph	2017 NAQ	bumped	5
Slow Leak	Graph	2019 NAQ	slowleak	5
Red/Blue Spanning Tree	Graph	2012 Chicago	redbluetree	5
Two Knight's Poem	Graph	2014 Chicago	twoknights	5
Buggy Robot	Graph	2016 MCPC	buggyrobot	5
Arriving on Time	Graph 2	LTH Challenge 2017	arrivingontime	6
Distinctive Character	Graph 2	2017 NCPC	distinctivecharacter	6
Shotcube	Graph 2	2013 NAQ	shotcube	6
Diplomacy	Graph 2	2014 Chicago	diplomacy	6
Vending Machine	Graph 2	2015 Chicago	vending	6
Food Review	Graph 2	2012 NCPC	foodreview	6
Kindergarten	Graph 2	2012 NCPC	kindergarten	7
Perfect Path Patrol	Graph 2	2020 NAQ	perfectpathpatrol	7

Highest Tower	Graph 2	2016 NCPC	tower	7
Can of Worms	Graph 2	2013 Chicago	canofworms	7
Particle Swapping	Graph 2	2014 NCPC	particles	7
Delivery Delays	Graph 2	2018 NCPC	deliverydelays	7
Winter Roads	Graph 2	2013 Chicago	winterroads	8
Code Cleanups	Greedy	2018 NCPC	codecleanups	2
Planting Trees	Greedy	2013 NCPC	plantingtrees	3
Intergalactic Bidding	Greedy	2018 NCPC	intergalacticbidding	3
Ternarian Weights	Greedy	2013 NAQ	ternarianweights	3
Orderly Class	Greedy	2017 MCPC	orderlyclass	3
Biggest Slice	Greedy	2013 NAQ	biggest	4
Brackets	Greedy	2016 NAQ	brackets	4
Postal Delivery	Greedy	2016 MCPC	delivery	4
Entertainment Box	Greedy	2015 NCPC	entertainmentbox	5
Ask Marilyn	Interactive	Will Code for Drinks	askmarilyn	2
Access Denied	Interactive	2021 NWERC	accessdenied	4
Das Blinken Lights	Math	2018 NAQ	dasblinkenlights	1
Batter Up	Math	2017 MCPC	batterup	1
Rating Problems	Math	2020 NA Regionals	ratingproblems	1
Stopwatch	Math	2020 RMPC	stopwatch	1
Pet	Math	2008 Croatian Open	pet	1
Heart Rate	Math	2017 RMPC	heartrate	1
All About that Base	Math	2015 NAQ	allaboutthatbase	3
Diagonal Cut	Math	2019 NAQ	diagonalcut	3
Zipline	Math	2019 NAQ	zipline	3
Overlapping Maps	Math	2013 Chicago	overlappingmaps	3
The Calculus of Ada	Math	2016 MCPC	ada	3
Goldbach Conjecture	Math	2013 NAQ	goldbach2	3
Inverse Factorial	Math	2016 NAQ	inversefactorial	4
Greeting Card	Math	2017 NAQ	greetingcard	4
Double Dealing	Math	2012 Chicago	double	4

GCDs	Math	2014 Chicago	gcds	4
Primal Partitions	Math	2015 Chicago	primal	4
Number Trick	Math	2013 NCPC	trick	4
Stop Counting	Math	2019 NAQ	stopcounting	5
The End of the World	Math	2012 Chicago	endoftheworld	5
Integer Estate Agent	Math	2014 Chicago	estate	5
Magic Checkerboard	Math	2015 Chicago	checkerboard	6
Hopscotch	Math	2017 MCPC	hopscotch	6
Coprime Integers	Math	2018 MCPC	coprimeintegers	7
Free Desserts	Math	2016 NAQ	freedesserts	8
Prinomino	Math	2016 NAQ	prinomino	8
Sky's the Limit	Math	2020 NAQ	skysthelimit	8
Maze Movement	Max Flow	2012 NAQ	mazemovement	5
Book Club	Max Flow	2014 SWERC	bookclub	5
Maximum Flow	Max Flow	2005 KTH Popup	maxflow	6
Minimum Cut	Max Flow	2006 KTH Popup	mincut	6
Dots and Boxes	Max Flow	2016 NAQ	dotsboxes	6
Cops and Robbers	Max Flow	2018 MCPC	copsandrobbers	6
Superdoku	Max Flow	2018 NAQ	superdoku	7
Flooding Fields	Max Flow	2013 Chicago	floodingfields	7
Sand Art	Max Flow	2015 Chicago	sandart	7
Science!	Max Flow	2012 Chicago	science	8
Job Postings	Min Cost Max Flow	2013 Chicago	jobpostings	7
Exponential	Number Theory	2016 NCPC	exponential	8
Dice Game	Probability	2014 NCPC	dicegame	2
Bobby's Bet	Probability	2015 NAQ	bobby	3
Dartboard	Probability	2013 NCPC	dartboard	4
Research Productivity	Probability	2019 NAQ	researchproductivityindex	4
Explosion Exploit	Probability	2018 NCPC	explosion	5
The Uncertainty of Politics	Probability	2017 MCPC	politics	5
Arcade	Probability	2016 NAQ	arcade	6

Random Manhattan Distance	Probability	2018 MCPC	randommanhattan	7
Traveling Merchant	RMQ	2019 NAQ	travelingmerchant	7
Monitoring Ski Paths	Segment Tree	2018 NAQ	monitoringskipaths	7
Unreal Estate	Segment Tree	2013 Chicago	unrealestate	7
Fantastic Problem	Segment Tree	2014 Chicago	fantasticproblem	9
Goat Ropes	Simplex	2013 Chicago	goatropes	7
FizzBuzz	Simulation	2016 RMPC	fizzbuzz	1
Glitch Bot	Simulation	2017 NAQ	glitchbot	2
Left and Right	Simulation	2018 NAQ	leftandright	2
Circuit Math	Simulation	2019 NAQ	circuitmath	2
Gerrymandering	Simulation	2019 NAQ	gerrymandering	2
ACM Contest Scoring	Simulation	2015 MCPC	acm	2
Falling Apples	Simulation	2016 MCPC	apples	2
Nine Knights	Simulation	2017 MCPC	nineknights	2
Train Passengers	Simulation	2014 NCPC	trainpassengers	3
Disasterous Downtime	Simulation	2015 NCPC	downtime	3
Imperfect GPS	Simulation	2017 NAQ	imperfectgps	3
Erratic Ants	Simulation	2013 NAQ	erraticants	4
Agglomerator	Simulation	2015 MCPC	agglomerator	4
Emptying the Baltic	Simulation	2017 NCPC	emptyingbaltic	5
Froggie	Simulation	2018 NAQ	froggie	5
Rainbow Zamboni	Simulation	2015 Chicago	zamboni	6
Clock Pictures	String	2014 NCPC	clockpictures	6
Repeated Substrings	String	2018 MCPC	repeatedsubstrings	6
NVWLS	String	2019 NAQ	nvwls	8
Automatic Trading	String	2013 Chicago	automatictrading	7
Hidden Password	String Easy	2015 MCPC	hidden	1
Line Them Up	String Easy	2015 MCPC	lineup	1
Poker Hand	String Easy	2018 MCPC	pokerhand	1
Magic Trick	String Easy	2020 NA Regionals	magictrick	1
Progressive Scramble	String Easy	2017 NAQ	progressivescramble	2

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