

The CENTRE for EDUCATION in MATHEMATICS and COMPUTING

Faculty of Mathematics University of Waterloo Waterloo, Ontario, Canada N2L 3G1

2002 Canadian Computing Competition Results

Sponsors:





Comments Commentaires

The Canadian Computing Competition saw a modest increase in participation this year over last year. We are indebted to the many teachers who provided the opportunity and assistance to their students to participate in the contest. I would particularly like to express my appreciation to the teachers involved in the grading of the competition. Without their participation it would not be possible to allow the Stage 1 competitors the variety of platforms and programming languages that we currently allow them to use in the competition.

Again this year, we have experienced unacceptable delays in returning information to schools about Stage 1 outcomes. We will be instituting more changes next year to correct this problem.

The first, and perhaps the most significant, change is in the registration cost, which will be lowered to \$5.00 per student. Along with this a medal will be provided to the top competitor in each division in each school, provided the competitor achieves a score higher than a cutoff score. The cutoff score will be determined by the scores on the competition.

Congratulations to all competitors for their participation in the competition.

Comments about the problems and their solutions will appear on the website in the near future.

Junior Competitors

Students are listed Name Nom	in alphabetical order within each	ch group / Dans chaque groupe, les élèves sont n School École	ommés en ordre alphabetiques. Location Endroit
	ores from 74 to 75	Ecole	Eliuroit
Robert	Biswas	Vincent Massay C C	Windson ON
		Vincent Massey S.S.	Windsor, ON
Jeff	Chadder	Guelph C. & V.I.	Guelph, ON
Andrei	Cojocaru	Archbishop Macdonald H.S.	Edmonton, AB
Geoffrey	Fung	Dr. Norman Bethune C.I.	Scarborough, ON
Glen	Martin	North Park C.I.	Brantford, ON
Aaron	Smith	Huron Heights S.S.	Newmarket, ON
Dan	Swartzentruber	Forest Heights C.I.	Kitchener, ON
Tony	Targonski	Metropolitan Prep. Academy	Toronto, ON
Yifei	Wang	Vincent Massey S.S.	Windsor, ON
Jasper	Yeh	Thornhill S.S.	Thornhill, ON
Group 2 - Sco	ores from 67 to 73		
Valerie	Cheung	Vincent Massey S.S.	Windsor, ON
Chad	Cogar	Crescentview School	Portage La Prairie, MB
Mihai	Cosma	Bell H.S.	Nepean, ON
Johnny	Gozde	Lord Beaverbrook H.S.	Calgary, AB
Marcel	Guzman	Moscrop Secondary School	Burnaby, BC
	Inozemtsev	Sinclair S.S.	
Grigori Pawel			Whitby, ON
	Kosicki	Vincent Massey S.S.	Windsor, ON
Andrew	Lysyk	O'Neill C.V.I.	Oshawa, ON
Geoff	Lywood	Archbishop Macdonald H.S.	Edmonton, AB
Alex	Mccarthy	Markham D.H.S.	Markham, ON
Erik	Miranda	Kincardine D.S.S.	Kincardine, ON
Richard	Peng	Bloor C.I.	Toronto, ON
Peter	Qian	Loyalist C.&V.I.	Kingston, ON
Robert	Varga	Guelph C. & V.I.	Guelph, ON
Tom	Voros	White Oaks S.S.	Oakville, ON
Group 3 - Sco	ores from 60 to 66		
Shachar	Avni	Sir Robert Borden H.S.	Nepean, ON
Simon	Couture	Polyvalente de Levis	Levis, QC
Aidan	Findlater	Campbell C.I.	Regina, SK
Yuli	Fiterman	Vaughan S.S.	Thornhill, ON
Jeff	Goeders	Huron Heights S.S.	Newmarket, ON
Jeremy	Green	Richview C.I.	Etobicoke, ON
Eugene	Greene	Vincent Massey S.S.	Windsor, ON
Weibo	Hao	Vincent Massey S.S.	Windsor, ON
Davin	Johnson	St. John's Kilmarnock School	Breslau, ON
_	Kramar	Univ. Of Toronto Schools	, and the second
Janos			Toronto, ON
Gabriel	Lemieux	Polyvalente de Levis	Levis, QC
C Silvia	Li	Riverdale C.I.	Toronto, ON
Yi	Liu	Lisgar C.I.	Ottawa, ON
Nick	Meng	Lisgar C.I.	Ottawa, ON
Yang	Niu	Western Canada H.S.	Calgary, AB
Andrew	Rosselet	Woburn Collegiate Institute	Toronto, ON
Aaron	Ruimy	Vincent Massey S.S.	Windsor, ON
Andor	Salga	York Mills C.I.	North York, ON
Michael	Sitwell	Sir Robert Borden H.S.	Nepean, ON
Vassili	Skarine	Northview Heights S.S.	North York, ON
Shawn	Tse	Dr. E. P. Scarlett H.S.	Calgary, AB
Soroush	Vosoughi	John F. Ross CVI	Guelph, ON
Jason	Weinstein	York Mills C.I.	North York, ON
Jason	Wilman	O'Neill C.V.I.	Oshawa, ON
Chris	Yong Set	Dr. Norman Bethune C.I.	Scarborough, ON
	ores from 55 to 59	211 Tollian Dolland Cit.	200000000000000000000000000000000000000
Jeremy	Aneja	Academy For Gifted Children	Richmond Hill, ON
Catalina	Baetoniu	Etobicoke C.I.	Etobicoke, ON
Boris	Chan	Dr. Norman Bethune C.I.	Scarborough, ON
Jeannie	Chan	Hugh McRoberts S.S.	Richmond, BC
Jeanne	Citati	Trugii McKoocits 3.3.	Kichinoliu, DC

Chen	Jarvis C.I.	Toronto, ON
Cheung	Markham D.H.S.	Markham, ON
Chion	Markham D.H.S.	Markham, ON
Chopra	Centennial C. & V.I.	Guelph, ON
Giles	A.N. Myer S.S.	Niagara Falls, ON
Haider	Havergal College	Toronto, ON
Haji	Sir Frederick Banting S.S.	London, ON
Leung	Vaughan S.S.	Thornhill, ON
Li	Western Canada H.S.	Calgary, AB
Lifshits	Vincent Massey S.S.	Windsor, ON
Link	Dr. E. P. Scarlett H.S.	Calgary, AB
Lytvyn	Vaughan S.S.	Thornhill, ON
Ma	Vincent Massey S.S.	Windsor, ON
Mccalla	Etobicoke C.I.	Etobicoke, ON
Mistry	Sir Robert Borden H.S.	Nepean, ON
Ng	Thornlea S.S.	Thornhill, ON
Osullivan	Ridley College	St. Catharines, ON
Pang	Crofton House School	Vancouver, BC
Panteleev	Nepean H.S.	Ottawa, ON
Ragusila	Danforth Coll. & Tech. Inst.	Toronto, ON
Ratushniak	Campbell C.I.	Regina, SK
Ren	Vincent Massey S.S.	Windsor, ON
Seepe	Vaughan S.S.	Thornhill, ON
Sirbu	Lisgar C.I.	Ottawa, ON
Tai	Dr. Norman Bethune C.I.	Scarborough, ON
Tan	Eric Hamber S.S.	Vancouver, BC
Tong	Dr. Norman Bethune C.I.	Scarborough, ON
Wong	Hugh McRoberts S.S.	Richmond, BC
Zhang	St. Mary's High School	Calgary, AB
	Cheung Chion Chopra Giles Haider Haji Leung Li Lifshits Link Lytvyn Ma Mccalla Mistry Ng Osullivan Pang Panteleev Ragusila Ratushniak Ren Seepe Sirbu Tai Tan Tong Wong	Cheung Chion Markham D.H.S. Chopra Centennial C. & V.I. Giles A.N. Myer S.S. Haider Havergal College Haji Sir Frederick Banting S.S. Leung Vaughan S.S. Li Western Canada H.S. Lifshits Vincent Massey S.S. Link Dr. E. P. Scarlett H.S. Lytvyn Vaughan S.S. Ma Vincent Massey S.S. Mccalla Etobicoke C.I. Mistry Sir Robert Borden H.S. Ng Thornlea S.S. Osullivan Ridley College Pang Crofton House School Panteleev Nepean H.S. Ragusila Danforth Coll. & Tech. Inst. Ratushniak Campbell C.I. Ren Vincent Massey S.S. Sirbu Lisgar C.I. Tai Dr. Norman Bethune C.I. Tan Eric Hamber S.S. Tong Dr. Norman Bethune C.I. Wong Hugh McRoberts S.S.

Senior Competitors

Students are listed in alphabetical order within each group / Dans chaque groupe, les élèves sont nommés en ordre alphabetiques.

Name Nom		School École	Location Endroit
Gold Medalli	ists		
Cory	Fletcher	Colonel By S.S.	Gloucester, ON
Marcin	Mika	Father Michael Goetz S.S.	Mississauga, ON
Sujeevan	Rajayogam	Woburn Collegiate Institute	Toronto, ON
Jason	Thean	Woburn Collegiate Institute	Toronto, ON
Matei	Zaharia	Jarvis C.I.	Toronto, ON
Xin	Zhang	Woburn Collegiate Institute	Toronto, ON
Silver Medal	lists		
Bruce	Fontaine	London Central S.S.	London, ON
Sean	Henderson	Woburn Collegiate Institute	Toronto, ON
Brian	Keng	Vaughan S.S.	Thornhill, ON
Sahab	Yazdani	Thornhill S.S.	Thornhill, ON
Anthony	Xu	Woburn Collegiate Institute	Toronto, ON
Bronze Meda	allists		
Wissam	Bishara	Vincent Massey S.S.	Windsor, ON
Gerard	Escalante	Moscrop Secondary School	Burnaby, BC
Michael	Fortin	Champlain Regional College	St. Lambert, QC
Yaron	Friedman	Thornlea S.S.	Thornhill, ON
Steven	Kuo	Richview C.I.	Etobicoke, ON
Gary	Lambing	Vincent Massey S.S.	Windsor, ON
Yun	Lu	Victoria Park S.S.	North York, ON
James	Martens	Danforth Coll. & Tech. Inst.	Toronto, ON
Antonio	Sanchez	St. Matthew H.S.	Orleans, ON
Ilmin	Suh	George S. Henry Academy	Toronto, ON
Henry	Truong	Grand River C.I.	Kitchener, ON
Yin	Zhao	Vincent Massey S.S.	Windsor, ON

Honourable Mention

Michael	Boos	Gloucester H.S.	Gloucester, ON
Keith	Chung	Western Canada H.S.	Calgary, AB
James	Deboer	F.E. Madill S.S.	Wingham, ON
Matthew	Eagar	London Central S.S.	London, ON
Emir	Hasanbegovic	Richview C.I.	Etobicoke, ON
Mark	Ilton	St. Thomas Aquinas S.S.	London, ON
Hansel	Ip	Oakville Trafalgar H.S.	Oakville, ON
Lambo	Jayapalan	Woburn Collegiate Institute	Toronto, ON
Derek	Jones	Earl Of March S.S.	Kanata, ON
Andrew	Lauritzen	Banting Memorial H.S.	Alliston, ON
Duat	Le	Western Tech. Comm. School	Toronto, ON
Alex	Pickard	Sir Robert Borden H.S.	Nepean, ON
Reed	Riley	Richmond Hill H.S.	Richmond Hill, ON
Feng	Tian	Vincent Massey S.S.	Windsor, ON
Henry	Wong	St. Francis Xavier S.S.	Mississauga, ON
Michael	Wong	Woburn Collegiate Institute	Toronto, ON
Richard	Zadorozny	Ashbury College	Ottawa, ON

Nan

Cameron

Yang

Zwarich

Scores from 46 to 52 Nadeem Victoria Park S.S. North York, ON Abji John Allison London Central S.S. London, ON Andrew Baker Unionville H.S. Unionville, ON Saulroft Bancroft Thornhill S.S. Thornhill, ON Bela Bauer Ridley College St. Catharines, ON Cardwell Peter Lakeshore Catholic High School Port Colborne, ON The Woodlands S. Jasper Chan Mississauga, ON Daly Erindale S.S. Mississauga, ON Chang Forest Hill C.I. Toronto, ON Ian Cheng Johnathon Christie Cardinal Carter S.S. Leamington, ON Luke Cyca Swift Current Comp. H.S. Swift Current, SK Jean F Dostaler E.S.C. Marie-Rivier Kingston, ON Elan Dubrofsky Sir Robert Borden H.S. Nepean, ON Bryan Eyler Beaver Brae S.S. Kenora, ON Chris Francis Moira S.S. Belleville, ON Thornhill S.S. Thornhill, ON Nir Friedman Haynes Forest Heights C.I. Kitchener, ON Greg Hans Hesse Peterborough, ON Kenner C.V.I. Mateusz Inglot St. Mary's High School Kitchener, ON Chris Johnson Saunders S.S. London, ON Alexei Karpenko Waterloo C.I. Waterloo, ON Alan Kenned Y West Hill S.S. Owen Sound, ON Thornhill S.S. Thornhill, ON Alan Klaassen Kolosov North York, ON Dmitry Newtonbrook S.S. John Kooistra Chippewa S.S. North Bay, ON Robert Kosztyla Resurrection C.S.S. Kitchener, ON Talent Lam Markville S.S. Markham, ON Bertram Leung St. Joseph S.S. Mississauga, ON Lloyd Price Western Canada H.S. Calgary, AB Jason Tyler Forest Heights C.I. Kitchener, ON Lu

Jake Machina Vincent Massey S.S. Windsor, ON Ryan Morris St. Thomas Aguinas S.S. London, ON Adam Nace Huron Park S.S. Woodstock, ON Alan Markham D.H.S. Markham, ON Ng Zenon Parker Banting Memorial H.S. Alliston, ON Univ. Of Toronto Schools Sanjay Patel Toronto, ON Zhao Vincent Massey S.S. Windsor, ON Ray Schofield St. Matthew H.S. Orleans, ON James Baden, ON Schwartzentrub Waterloo Oxford D.S.S. Jesse Waterloo, ON Cezary Swieton Waterloo C.I. St. Michael's College School Toronto, ON Simon Tam Russell Webb Campbell C.I. Regina, SK Jonathan West Thornlea S.S. Thornhill, ON Kevin Xu Waterloo C.I. Waterloo, ON

Birchmount Park C.I.

M.M. Robinson H.S.

Scarborough, ON

Burlington, ON

Scores from 41 to 45

Wajahat Ali Aziz Winston Churchill C.I. Scarborough, ON Jonathan Academy For Gifted Children Richmond Hill, ON Aneia David Bartley Sherwood S.S. Hamilton, ON Scarborough, ON Omid Bashir Cedarbrae C.I. Michael Berg Swift Current Comp. H.S. Swift Current, SK Erik Bohl Bluevale C.I. Waterloo, ON Andrei Picton, ON Borac Home School Alexander Bradley Vancouver College H.S. Vancouver, BC Alex Casamassima King City S.S. King City, ON Shane St. Mary C.S.S. Pickering, ON Cernele Victor Dr. Norman Bethune C.I. Scarborough, ON Ching Markville S.S. Markham, ON Brian Choi Carl Clements Cedarbrae C.I. Scarborough, ON Seneca Cunningham Pickering H.S. Ajax, ON De Silva The Woodlands S. Mississauga, ON Nadish Marshall Mcluhan Cath. S.S. Eamonn Doherty Toronto, ON Lloyd Elliott Kingston C.V.I. Kingston, ON Esaagoolian Thornlea S.S. Thornhill, ON Andrew Sir Robert Borden H.S. Fiori Nepean, ON Middlefield C.I. David Fung Markham, ON Lester Gloria St. Joseph S.S. Mississauga, ON Daniil Golod Northview Heights S.S. North York, ON Waterloo Oxford D.S.S. Baden, ON Alex Gumz Ian Halliday Milliken Mills H.S. Unionville, ON Michael Hamstra Holy Cross C.S.S. Kingston, ON The Woodlands S. Mississauga, ON Jeff Hau Guanglin He Kingston C.V.I. Kingston, ON Anson Hidajat St. Joseph S.S. Mississauga, ON M.M. Robinson H.S. Brian Hogg Burlington, ON Thunder Bay, ON Ryan Holm St. Ignatius H.S. Lorna Huiskamp Centennial C. & V.I. Guelph, ON Paul Istoan Waterloo C.I. Waterloo, ON Jahed Clarkson S.S. Mississauga, ON Saeed Timothy Guelph C. & V.I. Guelph, ON Jennison Jingping Lisgar C.I. Ottawa, ON Ji Kemp Waterford D.H.S. Waterford, ON Aaron Mississauga, ON The Woodlands S. Ben Komalo Zhentao Li Marianopolis College Montreal, QC Jeff Lindquist Markham D.H.S. Markham, ON Peter Lloyd Woburn Collegiate Institute Toronto, ON Thornhill S.S. David Marcks Thornhill, ON Markle Sir Frederick Banting S.S. Lloyd London, ON Vlad Mnih Father John Redmond H.S. Etobicoke, ON Navrozally Markham, ON Ali Markville S.S. Eddy Omalley St. Thomas Aquinas S.S. London, ON Ouellette Bishop Ryan School Hamilton, ON Jason Dan Pajek St. Jean de Brebeuf Hamilton, ON East York C.L. Toronto, ON Henry J Pan Jason Peasgood River East C.I. Winnipeg Antonio Rodriguez St. David C.S.S. Waterloo, ON East Northumberland S.S. Ross Brighton, ON Peter Stephen Scovil Glendale H.S. Tillsonburg, ON Woburn Collegiate Institute Harnik Shukla Toronto, ON Gordon Graydon Memorial S.S. Mississauga, ON Ravi Singh Arjuna Sivasithambare Woburn Collegiate Institute Toronto, ON William Somers Gloucester H.S. Gloucester, ON Jonathan Sufrin Lawrence Park C.I. Toronto, ON Simon The Woodlands S. Mississauga, ON Tam Greg St. David C.S.S. Taylor Waterloo, ON Rory Tulk Holy Cross C.S.S. Kingston, ON Paul Walker F.E. Madill S.S. Wingham, ON Winston Churchill C.I. Scarborough, ON Tianiiao Wang Catholic Central H.S. Scott Weir London, ON David Wong Woburn Collegiate Institute Toronto, ON Wong Weitang Milliken Mills H.S. Unionville, ON Wu Marianopolis College Montreal, QC Qian Lorne Park S.S. Mississauga, ON Colin Young Anton Zolotkov Clarkson S.S. Mississauga, ON

Problem	Junior (all)	Junior (non-zero)	Senior (all)	Senior (non-zero)
J1	13.2	13.9		
J2	9.4	11.2		
S1J3	5.1	9.3	8.1	11.2
S2J4	10.1	11.9	12.2	12.9
S3J5	1.4	5.7	4.3	11.0
S4			1.9	5.6
S5			0.7	5.8

The averages denoted (all) in the above table include all students in the division.

The averages denoted (non-zero) in the above table include only students in the division who achieved a non-zero score on the problem.

There were 890 Senior Division competitors and 558 Junior Division Competitors.

Student Rankings

Classement des élèves

Junior Competitors

Senior Competitors

Score/ Note	Rank/ Position										
75	1	47	139	23	438	72	1	43	127	21	461
74	9	46	147	22	444	66	2	42	131	20	484
73	11	45	153	21	448	64	5	41	143	19	499
72	14	44	178	20	462	63	6	40	155	18	519
70	20	43	187	19	468	62	7	39	160	17	539
69	22	42	197	18	475		•				562
67	24	41	220	17	486	60	9	38	170	16	
66	26	40	228	16	491	59	13	37	173	15	576
65	27	39	236	15	495	58	14	36	181	14	668
62	28	38	262	14	520	57	16	35	189	13	677
61	29	37	272	13	522	56	23	34	193	12	685
60	31	36	282	12	523	55	26	33	204	11	737
59	51	35	298	11	525	54	27	32	224	10	746
58	52	34	304	10	527	53	38	31	233	9	749
57	58	33	313	9	535	52		30		8	7 4 2
56	71	32	334	7	541		41		240		
55	76	31	340	6	542	51	45	29	329	7	805
54	84	30	349	3	544	50	57	28	342	6	809
53	96	29	374	2	545	49	66	27	352	5	825
52	99	28	381	0	547	48	72	26	387	4	830
51	112	27	386			47	81	25	396	3	835
50	126	26	402			46	85	24	408	2	850
49	132	25	409			45	87	23	434	1	852
48	135	24	418			44	125	22	441	0	853

2002 Canadian Computing Competition Committee

Rich Clausi Elmira District Secondary School

Donny Cheung University of Waterloo

Gordon Chiu University of Waterloo

Gord Cormack (Chair) Computer Science Department University of Waterloo Barry Ferguson Office of the Dean - Math University of Waterloo

Sandy Graham Office of the Dean - Math University of Waterloo

Graeme Kemkes University of Waterloo Ian Munro

Computer Science Department University of Waterloo

Roy Parteno

St. Joseph Secodary School

Mississauga

Troy Vasiga

Computer Science Department

University of Waterloo