

## Report on the 2015 AUCKLAND MATHEMATICAL OLYMPIAD held Saturday 02 May



Almost 150 secondary school-aged students representing schools from Albany to Karaka (comprising 85 Y9 - Y10 students cf. 79 in 2014, and 64 Y11 - Y12 students cf. 72 in 2014) spent two hours on their Saturday morning tackling eight problems provided by Professor Arkadii Slinko (Department of Mathematics). The earlier questions were generally more accessible while the latter questions were designed to be more demanding. Students' solutions were graded from 0 (no progress / not attempted) up to 3 (a correct solution). The top Y9-Y10 or junior student attained a mark of 19 out of 24 possible marks while the top Y11-Y12 or Senior student attained a mark of 22 out of 24. Interestingly, five of the ten top students across both divisions had participated in last year's event.

As in 2014, the better students stood out by working efficiently, then notifying a marker when they believed they had solved the problem. Students were only permitted two turns at having their solutions checked by a marker so they needed to be judicious when they thought they had done enough to solve a particular problem. Accordingly, the team of sixteen markers responded to every solution offered by the students and the raised hands continued all the way to the end of the two hours permitted. In the senior room, Drs Igor Klep and Shixiao Wang provided expert interpretations of students' strategies while in the Junior room this task was handled by Professor Slinko and by Dr Julie de Saedeleer.

When the two hours ended, students were sent away to enjoy a light lunch of pizza and drinks while the markers met to total each student's score sheet. The sheets were then ranked so that the top fifteen students from the senior and the junior divisions could be found. Some useful score demarcation discussions took place, and the winners were eventually identified. Students and their parents and teachers were then invited back into MLT 1 and after announcements by Jac Mogeey about the forthcoming PULSE (Pre-University- Lecture-Series) events, and Ian Seong, the president of New Zealand Mathematical Olympiad Students Association, the prize-giving was held. Every school was provided with their students' certificates of participation then the winners of the major prizes were invited to come down to receive their prizes.

The highest scoring students in each division, and major prize-winners were:

JUNIOR (Y9-Y10) WINNERS		SENIOR (Y11-Y12) WINNERS	
1	ANDREW CHEN (ST KENTIGERN COLLEGE)	1	AMAY AGGARWAL (KING'S COLLEGE)
2	OWEN WANG (MACLEANS COLLEGE)	2	ALAN GU (TAKAPUNA GRAMMAR SCHOOL)
3	SONGYAN TENG (PAKURANGA COLLEGE)	3	SAMUEL CHEN (PAKURANGA COLLEGE)
4	NAZIF NASEEM (RANGITOTO COLLEGE)	4	HAO JIA (WESTLAKE BOYS' HIGH SCHOOL)
5	LEA MCARTHUR-TOMES (ALBANY JUNIOR HIGH SCHOOL)	5	RACHEL JI (EPSOM GIRLS' GRAMMAR SCHOOL)