Mathematical Association of Tasmania
2018 MAT Problem Solving Competition
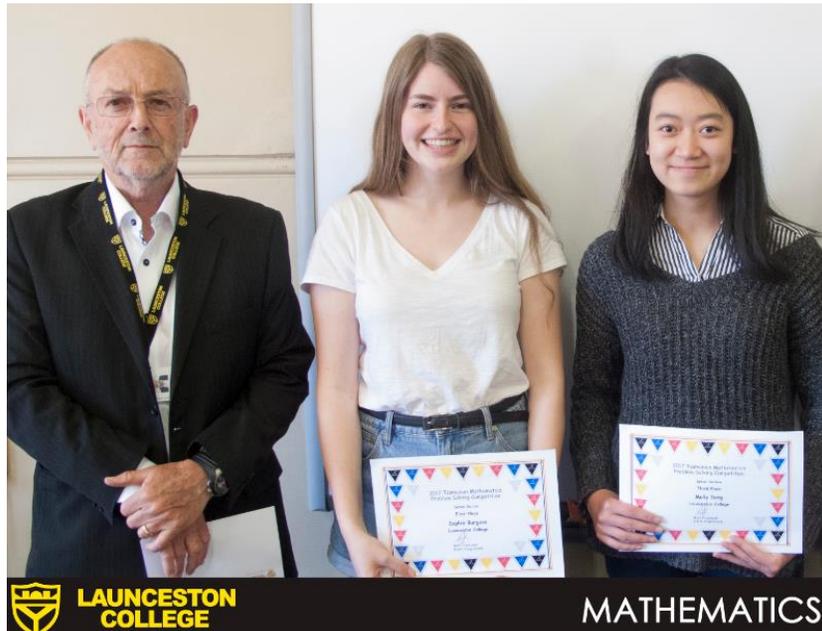
Principal Keith Wenn, Sophie Burgess (Senior Division, 1st Place, 2017) and Molly Deng (Senior Division, 3rd Place, 2017)

Thursday 22nd March 2018

DIVISIONS		PRIZES	
Primary	Years 5 – 6	**1st Place**	$100
Junior Secondary	Years 7 - 8	**2nd Place**	$60
Upper Secondary	Years 9 - 10	**3rd Place**	$40
Senior Secondary	Years 11 - 12		

Participation Certificates for <u>all</u> students

We recognise high-achieving Years 5, 7, 9 and 11 students as they compete against older students

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Example Question

a) Write down the first ten prime numbers.

b) I picked two different prime numbers and multiplied them together. My answer was 51. What were my numbers?

c) How many numbers below 51 do **not** share a factor with 51? (For example: 15 and 35 share a factor as they both divide by 5, while 16 and 35 do not share a factor.)

d) Pick two different prime numbers and multiply them together. How many numbers less than your total do **not** share a factor with your total? Repeat.

e) I pick two more prime numbers: 3301 and 1030201. I multiply them together. How many numbers less than my total do **not** share a factor with the total?

Entry forms and payment are due by
Friday 15th March 2018