



## 2016 AUSTRALIAN INTERMEDIATE MATHEMATICS OLYMPIAD

Tuesday 6 September 2016

### COVER SHEET

#### DIRECTIONS TO STUDENTS

- You have four hours and should answer as many questions as you can. This paper contains 10 questions worth a total of 35 marks as indicated. Please note that the questions require some thought and may take some time to solve.
- Questions 1 to 8 have answers which are non-negative integers less than 1000. Write the answers in the spaces provided on this cover sheet. If an answer is incorrect but correct comprehensible working is provided, then some marks may still be awarded. Questions 9 and 10 require written answers with proofs.
- Write in pen on one side of the paper only. Write your name and question number at the top of each page of submitted written answers and attach these to this cover sheet.
- Question 10 has an investigation associated with it which may be used to determine prize winners. Marks for the investigation will only be awarded if there are two or more students with the same highest score. You are strongly advised to answer all the other questions before spending time on the investigation.
- You must work on your own. You may use a ruler, compasses, rough paper or graph paper but no calculators, electronic devices, books or other aids are allowed.

School Name \_\_\_\_\_ Country \_\_\_\_\_ Year Level \_\_\_\_\_  
 (please print clearly)

Student's Name \_\_\_\_\_ Male/Female \_\_\_\_\_  
 (please print clearly) (please circle)

#### Answers to Questions 1– 8

Question	Answer	State Director's use only
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
	TOTAL	