61st ANNUAL HIGH SCHOOL HONORS MATHEMATICS CONTEST

April 21, 2018 on the campus of the University of California, San Diego

PART I 25 Questions

Welcome to the contest! Please do not open the exam until told do so by the proctor.

EXAMINATION DIRECTIONS:

- 1. Print (clearly) your Name and Contest ID number at the top of each page of the contest. (Keep your ID number handy for Part II.)
- 2. Calculators or other electronic devices may **not** be used.
- 3. There are 25 multiple-choice questions on Part I. You have 90 minutes for Part I.
- 4. Clearly indicate your answer in the bubble for each problem. Fill in the bubble, or put a clear X, or a checkmark; just make sure your selection is clear.
- 5. At the end of Part I, tear off this front page, and turn in your (still-stapled) contest.

Scoring

+4 points for a correct answer. 0 points for no answer. -1 points for an incorrect answer.

Good Luck!

There will be a 15 minute break after Part I before proceeding to Part II.

Please let your coach know if you plan to attend the Awards Banquet on Wednesday, May 2, 6:00–8:30pm in the UCSD Faculty Club.

ANSWERS.

1. (B)

14. (A)

2. (C)

15. (A)

3. (E)

16. (D)

4. (D)

17. (C)

5. (C)

18. (C)

6. (D)

19. (B)

7. (C)

20. (C)

8. (B)

21. (B)

9. (B)

22. (E)

10. (C)

23. (A)

11. (A)

24. (B)

12. (B)

25. (D)

13. (B)

 $(A)\times 4$

 $(B) \times 8$

 $(C)\times 7$

 $(D)\times 4$

 $(E) \times 2$