Advanced STEM Students

Nguyễn Quản Bá Hồng*

Ngày 2 tháng 6 năm 2025

Tóm tắt nội dung

This text is a part of the series *Some Topics in Advanced STEM & Beyond*:
URL: https://nqbh.github.io/advanced_STEM/.
Latest version:

- *Advanced STEM Students.*
  PDF: URL: https://github.com/NQBH/advanced_STEM_beyond/blob/main/teach/student/NQBH_student.pdf.
  TEX: URL: https://github.com/NQBH/advanced_STEM_beyond/blob/main/teach/student/NQBH_student.tex.

- .
  PDF: URL: .pdf.
  TEX: URL: .tex.

Mục lục

1 UMT Summer Semester 2025/1480: Introduction to Mathematical Analysis

1. TRẦN THANH CƯỜNG.

   - Absence: -2.
   - Early attendance: $0.5 + 0.5$.
   - Bonus:

2. HUỲNH LÂM VŨ ĐÌNH.

   - Early attendance: $0.5 + 0.5 + 0.5$.
   - Bonus:

3. TRƯƠNG CÔNG HOAN.

   - Early attendance: $0.5 + 0.5 + 0.5$.
   - Bonus:

4. NGUYỄN HUY HOÀNG [NHH].

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- Early attendance: 0.5 + 0.5 + 0.5.
- Bonus: 0.25 + 0.5 + 0.5 + 1 + 2 (count rooms) + 2 (build roads) + 2 (labyrinth) + 2 (message route).

5. Lữ Minh Hoàng.

- Absence: -2.
- Early attendance: 0.5.
- Bonus:

6. Hà Quang Huy.

- Early attendance: 0.5 + 0.5.
- Bonus:

7. Nguyễn Bảo Khánh.

- Early attendance: 0.5 + 0.5 + 0.5.
- Bonus: 1 + 2 + 1 + 0.5.

8. Nguyễn Lê Đăng Khoa [NLDK].

- Early attendance: 0.5 + 0.5 + 0.5.
- Bonus: 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 (gift) + 1.5 + 0.25 + 0.5 (doubles) + 0.5 (prime) + 0.5 (houseboat) + 1 (red black) + 1 (count rooms) + 1 (dice) + 1 (min coin) + 1 (coin combination I) + 1 (coin combination II) + 1 (grid path I) + 1.5 (book shop) + 1 (exp I) + 1 (exp II) + 0.5 (count divisor) + 1 (common divisor) + 1.5 (Josephus queries) + 2 (sum divisor) + 0.75 (next prime).

9. Phan Gia Lạc [PGL].

- Early attendance: 0.5 + 0.5 + 0.5.
- Bonus: 0.5 + 0.25 + 0.25 + 0.5 (doubles) + 0.5 (houseboat) + 0.5 (prime) + 1 (count room) + 1 (min coin) + 0.5 (count divisor).

10. Phan Phương Phi [PPP].

- Early attendance: 0.5 + 0.5 + 0.5.
- Bonus: 1 + 0.5 + 1 + 0.5 + 0.5 (prime) + 1 (count rooms) + 1 (dice) + 1 (coin) + 1 (coin combination I) + 0.5 (count divisor) + 1 (common divisor).

11. Đặng Minh Phương.

- Early attendance: 0.5 + 0.5.
- Absence: -2.
- Bonus:

12. Nguyễn Hoàng Quân.

- Early attendance: 0.5 + 0.5 + 0.5.
- Bonus:

13. Đường Nguyễn Minh Sơn.

- Early attendance: 0.5 + 0.5 + 0.5.
- Bonus:

14. Hầu Trung Thành.

- Absence: -2 - 2.
- Early attendance: 0.5.

15. Tạ Minh Thiện.

- Early attendance: 0.5 + 0.5 + 0.5.
- Bonus:

16. Lê Nguyễn Quốc Toàn.

- Early attendance: 0.5 + 0.5 + 0.5.

- Bonus:

17. Nguyễn Hoàng Ngọc Trân.

    - Absence: -2 - 2 - 2.
    - Bonus:

18. Nguyễn Anh Tuyển.

    - Early attendance: $0.5 + 0.5 + 0.5$.
    - Bonus:

19. Nguyễn Như Ý.

    - Early attendance: $0.5 + 0.5 + 0.5$.
    - Bonus: 1.

1.1 Potential topics for midterm exam

1. Cho dãy số $\{u_n\}_{n=1}^{\infty}$. Cho vài giá trị cụ thể của ε, tính N_ε.

2 UMT Summer Semester 2025/1481: Introduction to Mathematical Analysis

1. Lê Minh Trâm Anh.

    - Absence: -2.
    - Early attendance: $0.75 + 0.75 + 0.75$.
    - Bonus:

2. Nguyễn Bảo Anh.

    - Early attendance: $0.75 + 0.75$.
    - Late: 5 mins.

3. Cao Gia Bảo.

    - Absence: -2.
    - Early attendance: $0.75 + 0.75 + 0.75 + 0.75$.

4. Vũ Văn Đạt.

    - Absence: -2.
    - Early attendance: $0.75 + 0.75 + 0.75 + 0.75$.
    - Bonus: $1 + 0.5$.

5. Trần Văn Hậu.

    - Absence: -2.
    - Early attXuendance: $0.75 + 0.75 + 0.75 + 0.75$.
    - Bonus: 1.

6. Nguyễn Ngọc Bích Hiền.

    - Early attendance: $0.75 + 0.75 + 0.75 + 0.75 + 0.75$.
    - Bonus: $0.25 + 1 + 1 + 2 + 1 + 1.5$.

7. Nguyễn Văn Hiếu.

    - Absence: -2.
    - Early attendance: $0.75 + 0.75 + 0.75$.

8. Dương Xuân Hưng [DXH].

    - Early attendance: $0.75 + 0.75 + 0.75 + 0.75$.
    - Bonus: $1 + 1 + 1$ (gift) $+ 1$ (picture) $+ 2$ (count rooms) $+ 2.5$ (coin combination I) $+ 2$ (coin combination II) $+ 3$ (array description) $+ 1.5$ (numerical differentiation OOP).

9. TRẦN LÊ GIA HUY.

   - Early attendance: 0.75 + 0.75 + 0.75 + 0.75.

10. TRẦN QUANG HUY.

    - Absence: -2.
    - Early attendance: 0.75 + 0.75 + 0.75.

11. ĐẶNG PHÚC AN KHANG [DPAK].

    - Early attendance: 0.75 + 0.75 + 0.75.
    - Late: 15 + 52 mins.
    - Bonus: 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 1 + 0.5 (virus) + 0.5 (gift) + 0.5 (game) + 0.25 (financial management) + 0.5 + 0.5 (prime) + 1 (red black) + 1 + 1 (x^a) + 1 (count room) + 1 (build road) + 1 (dice combination) + 1 (minimizing coin) + 1 (coin combination I) + 1 (coin combination II) + 1.5 (remove digit) + 1 (grid path I) + 1 (book shop) + 1 (exp I) + 1.5 (edit distance) + 1.5 (longest common subsequence) + 1 (num diff polynomial) + 1.5 (prime multiple) + 0.75 (next prime).

12. LƯƠNG QUỐC KHÁNH.

    - Early attendance: 0.75 + 0.75 + 0.75 + 0.75.
    - Bonus: 1 + 1 + 1 + 1.

13. NGUYỄN HÀ ĐĂNG KHOA.

    - Early attendance: 0.75 + 0.75 + 0.75 + 0.75.
    - Bonus: 1.

14. NGUYỄN HUY ĐĂNG KHOA.

    - Absence: -1.
    - Early attendance: 0.75 + 0.75.

15. HUỲNH ĐỖ ĐĂNG KHOA.

    - Late: 23 + 45 + 25 mins.
    - Early attendance: 0.75.

16. TRẦN TRUNG KIÊN.

    - Early attendance: 0.75 + 0.75 + 0.75 + 0.75.

17. NGUYỄN HUỲNH CHÍ LÂM.

    - Early attendance: 0.75 + 0.75 + 0.75 + 0.75.
    - Bonus: 1 + 0.75 + 1 + 1.

18. LÊ HOÀNG LINH.

    - Early attendance: 0.75 + 0.75 + 0.75.
    - Bonus: 1 + 1.
    - Late: 30 mins.

19. LÂM BẢO NGỌC.

    - Absence: -1.
    - Early attendance: 0.75 + 0.75 + 0.75 + 0.75.
    - Bonus: 0.25.

20. NGUYỄN LƯƠNG NGHĨA.

    - Early attendance: 0.75 + 0.75 + 0.75 + 0.75 + 0.75.
    - Bonus: 0.5 + 1 + 1 + 3 + 1.5 + 1.5 + 1.5.

21. TRẦN PHÚC NGUYÊN.

    - Early attendance: 0.75 + 0.75 + 0.75 + 0.75 + 0.75.

22. Bùi Văn Nhớ.

- Early attendance: 0.75 + 0.75 + 0.75 + 0.75.
- Late: 40 mins.
- Bonus: 1 + 1 + 1 + 1 + 3 + 0.75.

23. Lê Thanh Tân.

- Absence: -1.
- Early attendance: 0.75 + 0.75.
- Late: 5 mins.

24. Huỳnh Thị Kiều Thu.

- Early attendance: 0.75 + 0.75 + 0.75 + 0.75 + 0.75.
- Bonus: 1 + 1 + 1 + 1.5.

25. Hoàng Nghĩa Tín.

- Early attendance: 0.75 + 0.75 + 0.75 + 0.75.

26. Hoàng Anh Tuấn.

- Absence: -2.
- Early attendance: 0.75 + 0.75 + 0.75 + 0.75.

27. Ngô Thanh Tùng.

- Absence: -2 - 2.
- Early attendance: 0.75.
- Late: 29 mins.

28. Ngô Hoàng Tùng [NHT].

- Early attendance: 0.75 + 0.75 + 0.75 + 0.75.
- Bonus: 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 1.5 + 0.5 + 0.5 (virus) + 0.5 (vni) + 0.5 (gift) + 0.5 (game) + 1 + 1 (count rooms) + 1 (labyrinth) + 1 (build roads) + 1 (dice) + 1 (min coin) + 1 (coin combination I) + 1 (coin combination II) + 1 (remove digit) + 1 (grid path) + 1.5 (array description) + 1 (book shop) + 1.5 (count towers) + 1.5 (edit distance) + 1 (exp I) + 1 (exp I) + 1 (num diff poly) + 1.25 (num diff poly 1) + 1.5 (Josephus queries) + 2 (sum divisor) + 0.75 (next prime) + 0.75 (next prime).

29. Trần Mộng Tuyền.

- Absence: -1.
- Early attendance: 0.75 + 0.75 + 0.75.

30. Nguyễn Quang Vỹ.

- Absence: -1.
- Early attendance: 0.75 + 0.75 + 0.75.
- Bonus: 1.5 + 4 + 1 + 1.5.

3   UMT Summer Semester 2025/1387: Combinatorics & Graph Theory

1. Võ Ngọc Trâm Anh [VNTA].

- Early attendance: 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5.
- Bonus: 0.75 + 1 + 2 + 1.5 + 0.5 + 0.5 + 0.5 (Fibonacci + Lucas) + 0.5 (virus) + 2.5 (gen func) + 2 (Euler candy gen func) + 0.5 (houseboat) + 0.5 (prime) + 1 (red black) + 1 (count rooms) + 1 (labyrinth) + 1 (build roads) + 1 (message routes) + 1 (build team) + 1 (round trip) + 1 (monster) + 1.5 (flight route) + 1 (dice) + 1 (coin) + 1 (coin combination I) + 1 (coin combination II) + 1 (grid path) + 2 (Dijkstra) + 3 (proof Dijkstra) + 2.5 (Dijkstra priority queue) + 1 (exp I) + 1 (exp II) + 1 (Stirling 2 DP) + 0.5 + 0.75 + 1 (valid parentheses) + 1 (C++ valid parentheses) + 1 (PAC Catalan C++) + 1 (Pascal triangle, multinomial) + 0.5 (count geo domain) + 1.5 (Josephus queries).

2. Hoàng Anh [HA].

- Early attendance: 0.25 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5.
- Bonus: 1.5 + 1 + 0.5 + 1.5 + 1 (Stirling 2).

3. Võ Huỳnh Thái Bảo.

- Early attendance: 0.25 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5.
- Late: 7 mins.
- Bonus:

4. Trần Mạnh Đức.

- Early attendance: 0.25 + 0.5 + 0.25 + 0.25 + 0.25 + 0.5.
- Bonus: 1.5 + 1 + 1.5 + 0.5 (Stirling 2).
- Late: 18 + 7 mins.

5. Nguyễn Trung Hậu.

- Absence: -2 - 2 - 2 - 2.
- Early attendance: 0.25 + 0.25.
- Bonus:
- Late: 24 mins.

6. Phạm Phước Minh Hiếu.

- Early attendance: 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5.
- Bonus: 1 + 0.5 + 1 (Stirling 2) + 1 (Stirling 2 Python).

  Chấm report Hiếu week 1: B2 Catalan mã O+1 bạn hiểu sai đề: đề kêu chứng minh số cách đặt n dấu (&) đúng là số Catalan C_n, hông phải tính số Catalan số 4 nên +0. bài m số 0 & $n-m$ số 1, làm cách khác tui +1. Prob. 4 CM $|2^{[}n]| = 2^n$: +1. Prob. 5: dùng nguyên lý bao hàm-loại trừ chưa chặt chẽ, bài đó cần lý luận nhiều & khó hơn: +0.25. Prob. 6: +1. Prob. 1: +1. Prob. 2: +1.

  Ex1.cpp: +0.5, Ex3: +0.5, Ex5.cpp: +1, Ex6.cpp: +1. Ex7.cpp: +1, Ex8.cpp & Ex9.cpp: +0 (bài toán khó hơn thế vì có thể có nhiều bộ điểm thẳng hàng nên việc mô tả cấu trúc hình học là phần khó chính)

7. Hoàng Quang Huy.

- Early attendance: 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25.
- Bonus: 2 + 1.5.

8. Phan Nguyễn Duy Kha.

- Absence: -1.
- Early attendance: 0.25 + 0.5 + 0.25 + 0.25 + 0.25.
- Bonus: 1.5 + 1 + 1 + 1 + 1.5 + 1.5.
- Late:

9. Đặng Phúc An Khang.

- Bonus: 0.5 + 1 + 1.

10. Phạm Minh Khoa.

- Absence: -2 - 2.
- Early attendance: 0.25 + 0.5 + 0.25 + 0.5 + 0.25.
- Bonus:
- Late:

11. Trần Thành Lợi.

- Absence: -2 - 2 - 2.
- Early attendance: 0.25 + 0.25.
- Bonus:
- Late: 23 + 60 mins.

12. Lê Đức Long.

- Absence: -2.
- Early attendance: 0.25 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25.
- Bonus: 1 + 0.5 + 1 + 1.

13. LÊ CÔNG HOÀNG PHÚC.

- Early attendance: 0.25 + 0.5 + 0.25 + 0.25 + 0.25 + 0.5.
- Bonus: 1.
- Late: 24 + 3 mins.

14. HUỲNH NHẬT QUANG.

- Absence: -2 - 2.
- Early attendance: 0.25.
- Late: 10 + 20 + 20 mins.
- Bonus:

15. CAO SỸ SIÊU.

- Early attendance: 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5.
- Bonus: 1 + 1.

16. SƠN TÂN [ST].

- Early attendance: 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5.
- Bonus: 1 + 1 + 1.5.
  Chấm report Sơn Tân: 0.25 (a) + 0.25 (b) + 0.25 (c) + 0.25 (e) + 0.25 (g, ghi sai mũ) + 0.25 (h) + 1.5 (Pascal, làm được cho $(sum_{i=1}^{m} a_i)^n$ nhiều điểm hơn) + 2 (tính C_n^k).

17. NGUYỄN NGỌC THẠCH [NNT].

- Early attendance: 0.25 + 0.25 + 0.5 + 0.25 + 0.5.
- Bonus: 3 + 1 + 1 + 1.5 + 2 (Catalan) + 5 (Euler candy) + 2.5 (induction) + 1 (toss coin) + 1 (dice roll) + 1 (dice roll) + 1 + 1 + 2 (combinator identity) + 1.5 (dollar) + 0.5 + 2.5 + 1.5 + 1 + 1 + 1 + 1 + 1.5 + 1 + 1.5 (Stirling 2 recursive).
- Late: 5 + 23 mins.

18. PHAN VĨNH TIẾN [PVT].

- Late: 8 + 25 + 16 mins.
- Early attendance: 0.25 + 0.5 + 0.25 + 0.5.
- Bonus: 2 + 0.5 (virus) + 1 + 2 (binomial) + 1 (exp I) + 1 (exp II) + 1 (Stirling 2 DP) + 1 (Bell).

3.1 Potential topics for midterm- & final exams

- Chứng minh bằng phương pháp quy nạp toán học.

- Bài toán chia kẹo Euler.

- Khai triển nhị thức Newton.

- Sử dụng định lý Euler & thuật toán Havel-Hakimi để chạy tay kiểm tra 1 dãy có phải là graphical sequence hay không. Vẽ đồ thị minh họa.

- Hàm sinh.

- Chạy tay thuật toán Dijkstra.

- Shortest path problem on graph – Bài toán đường đi ngắn nhất.

4 UMT Summer Semester 2025/1488: Introduction to AI

1. Hồ Lê Duy.

   - Absence: -2.
   - Early attendance: 0.5 + 0.5 + 0.5.

2. Trương Công Hoan.

   - Early attendance: 0.5 + 0.5 + 0.5 + 0.5.

3. Lữ Minh Hoàng.

   - Early attendance: 0.5 + 0.5 + 0.5 + 0.5.

4. Đinh Kim Hưng.

   - Early attendance: 0.5 + 0.5 + 0.5 + 0.5.
   - Bonus: 3.

5. Huỳnh Võ Quốc Khánh.

   - Absence: -2 - 2.
   - Early attendance: 0.5 + 0.5.

6. Nguyễn Nhật Khôi.

   - Absence: -2.
   - Early attendance: 0.5 + 0.5.

7. Vòng Lý Nàm Phúc VLNP.

   - Early attendance: 0.5 + 0.5 + 0.5 + 0.5.
   - Bonus: 1.5 + 2 (extended scheduling).

8. Hầu Trung Thành.

   - Absence: -2 - 2.
   - Early attendance: 0.5.
   - Late: 5 mins.

9. Nguyễn Thi.

   - Absence: -2 - 2 - 2 - 2.

10. Đặng Nguyễn Duy Trường.

   - Early attendance: 0.5 + 0.5 + 0.5 + 0.5.

5 UMT Summer Semester 2025/1493: Information Technology Fundamentals 2

1. Cao Nguyễn Gia An.

   - Early attendence: 0.5 + 0.5 + 0.5 + 0.5.
   - Bonus: 3.5 + 2 + 2 + 2.5 + 2.5 + 1 + 1.5 + 1 + 1 + 1.5 + 2.5 + 1 (eval func) + 1.5 + 2 + 2 + 2.5.

2. Hoàng Trâm Anh.

   - Early attendence: 0.5 + 0.5 + 0.5 + 0.5.
   - Bonus: 1 + 2 + 2 + 2.5 + 1.5 + 0.5 + 1 + 1.5.

3. Bùi Nguyên Minh Dũng.

   - Early attendence: 0.5 + 0.5 + 0.5 + 0.5.
   - Bonus: 2.5 + 2 + 2 + 2.5 + 2.5 + 1 + 1.5.

4. Nguyễn Ngọc Hân.

- Early attendence: $0.5 + 0.5 + 0.5 + 0.5$.
- Bonus: $0.5 + 1 + 1.5 + 0.5 + 1 + 1 + 1.5 + 1 + 1.5 + 2 + 2 + 2.5$.

5. Nguyễn Thành Thái Hiệp.

- Early attendence: $0.5 + 0.5 + 0.5 + 0.5$.
- Bonus: $3 + 2 + 2 + 2.5 + 2.5 + 1 + 1.5 + 0.5 + 1 + 1.5 + 1 + 1.5 + 2.5$ (near perfect) $+ 2 + 2$.

6. Vũ Nguyễn Yến Hoa.

- Early attendence: $0.5 + 0.5 + 0.5 + 0.5$.
- Bonus: $1 + 2 + 2.5 + 1 + 1.5 + 0.5 + 1$ (eval func) $+ 1.5 + 2$.

7. Đỗ Huy Hoàng.

- Early attendence: $0.5 + 0.5 + 0.5 + 0.5$.

8. Nguyễn Gia Huy.

- Absence: $-2 - 2 - 2$.
- Early attendence: $0.5 + 1$ (eval func) $+ 1.5 + 2 + 2 + 2.5$.

9. Phạm Lâm Gia Khánh.

- Absence: -2.
- Late: 15 mins.
- Bonus: $0.5 + 0.5 + 1 + 1.5 + 2$.

10. Phạm Xuân Khánh.

- Absence: -2.
- Early attendence: 0.5
- Late: $15 + 30$ mins.
- Bonus: $2 + 1 + 1.5 + 0.5 + 1 + 1.5 + 1 + 2$.

11. Bùi Đức Khoa.

- Absence: -2.
- Early attendence: $0.5 + 0.5 + 0.5$.
- Bonus: $0.5 + 2 + 1$ (eval func) $+ 1.5$.

12. Trần Vũ Nguyên Khôi.

- Early attendence: $0.5 + 0.5 + 0.5$.
- Late: 20 mins.
- Bonus: $3 + 2 + 2 + 1 + 1.5 + 1 + 1.5 + 1 + 1.5 + 2 + 2$ (near perfect) $+ 2 + 2.5$.

13. Vũ Thị Ngọc Lan.

- Early attendence: $0.5 + 0.5 + 0.5 + 0.5$.
- Bonus: $2.5 + 2 + 2 + 2.5 + 1 + 1.5 + 0.5 + 1 + 1.5 + 1 + 1.5 + 2 + 2 + 2.5$.

14. Trần Văn Lên.

- Early attendence: $0.5 + 0.5 + 0.5 + 0.5$.
- Bonus: $0.5 + 2 + 2 + 2.5 + 2.5 + 1 + 1.5 + 1 + 1 + 1.5 + 1$ (eval func) $+ 1.5 + 2 + 2 + 2.5$.

15. Thái Anh Nhật Thiên Long.

- Absence: $-2 - 2 - 2$.
- Early attendence: 0.5.
- Bonus: $2 + 2 + 2.5$.

16. Lê Nguyễn Bảo Ngọc.

- Absence: $-2 - 1$.
- Late: $15 + 15$ mins.

- Bonus: 1 + 1.5 + 0.5 + 1 + 1.5 + 1 + 1.5 + 2.

17. Lê Hồng Ngọc.

    - Absence: -2 - 1.
    - Early attendence: 0.5 + 0.5.
    - Bonus: 2 + 2.5 + 1 (eval func) + 1.5 + 2 + 2.

18. Nguyễn Hữu Nhân.

    - Absence: -2 - 2.
    - Early attendence: 0.5.
    - Bonus: 0.5.
    - Late: 15 mins.

19. Lâm Thiện Nhân.

    - Absence: -2.
    - Early attendence: 0.5 + 0.5 + 0.5.
    - Bonus: 2.5 + 1.

20. Phạm Minh Nhật.

    - Absence: -2
    - Early attendence: 0.5 + 0.5 + 0.5.
    - Bonus: 1.5 + 2 + 2 + 2.5 + 1 + 1.5 + 2.

21. Phạm Quỳnh Như.

    - Early attendence: 0.5 + 0.5 + 0.5 + 0.5.
    - Bonus: 1 (eval func)

22. Nguyễn Ngọc Quỳnh Như.

    - Early attendence: 0.5 + 0.5 + 0.5 + 0.5.

23. Đoàn Trương Thiên Phong.

    - Absence: -2.
    - Early attendence: 0.5 + 0.5.

24. Hồ Tấn Tài.

    - Early attendence: 0.5 + 0.5 + 0.5.
    - Bonus: 1.5 + 2 + 2 + 1 + 0.5 + 1 + 1 + 1.5 + 2.
    - Late: 10 mins.

25. Hồ Quốc Thành.

    - Early attendence: 0.5 + 0.5 + 0.5 + 0.5.
    - Bonus: 1 + 1.5 + 1 + 1 + 1.5.

26. Nguyễn Thị Minh Thư.

    - Absence: -2 - 2 - 2 - 2.

27. Đỗ Thị Hải Tình.

    - Early attendence: 0.5 + 0.5 + 0.5 + 0.5.
    - Bonus: 2 + 2 + 2.5 + 1 + 1.5 + 0.5 + 1 + 1.5 + 1 + 1.5 + 2.

28. Võ Đoàn Thái Toàn.

    - Early attendence: 0.5 + 0.5 + 0.5 + 0.5.
    - Bonus: 0.5 + 2 + 2 + 1 + 0.5 + 1 + 1 + 1.5 + 2 + 2.5.

29. Trần Quốc Trung.

    - Early attendence: 0.5 + 0.5 + 0.5 + 0.5.
    - Bonus: 0.5 + 2 + 2 + 2.5 + 1 + 0.5 + 1.5 + 1 + 1.5 + 2.

6 Olympic Tin OLP ICPC

1. Đỗ Anh Kiệt [DAK].

   - Bonus: 0.5 (virus) + 1 (count rooms) + 1 (dice) + 1.5 (shortest route I).

2. Trần Quang Sơn [TQS]. K3.

   - Bonus: 0.5 + 1 (prime) + 1 (houseboat).

3. Phạm Đăng Hoàng Thiên [PDHT]. K3.

   - Bonus: 0.5 + 1 (houseboat) + 2 (remove digit) + 1.5 (next prime).

7 Miscellaneous