Advanced STEM Students

Nguyễn Quản Bá Hồng[*]

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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 - 2 - 2.

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

- Bonus:

2. HUỲNH LÂM VŨ ĐÌNH.

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[*]A scientist- & creative artist wannabe, a mathematics & computer science lecturer of Department of Artificial Intelligence & Data Science (AIDS), School of Technology (SOT), UMT Trường Đại học Quản lý & Công nghệ TP.HCM, Hồ Chí Minh City, Việt Nam.
E-mail: nguyenquanbahong@gmail.com & hong.nguyenquanba@umt.edu.vn. Website: https://nqbh.github.io/. GitHub: https://github.com/NQBH.

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

3. TRƯƠNG CÔNG HOAN.

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

4. NGUYỄN HUY HOÀNG [NHH].

- Early attendance: 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 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) + 2 (Christmas party) + 0.5 + 1 (l'Hospital) + 1 (next prime) + 0.25 (weird alg) + 0.25 (repetition) + 0.25 (miss number) + 0.25 (increase array) + 0.5 (permutation) + 0.5 (2 sets) + 0.5 (Hanoi tower) + 0.5 (bee) + 0.5 (gold coin) + 0.5 (number spiral) + 0.25 (2 knights) + 0.5 (bit string) + 0.5 (trailing 0) + 0.5 (coin pile) + 0.25 (3n + 1) + 0.5 + 0.25 + 0.25 + 0.5 (create string) + 1 + 1 + 1.

5. LỮ MINH HOÀNG.

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

6. HÀ QUANG HUY.

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

7. NGUYỄN BẢO KHÁNH [NBK].

- Absence: -1.
- Early attendance: 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5.
- Bonus: 1 + 2 + 1 + 0.5 + 1 + 1.5 (l'Hospital) + 0.5 + 0.5 + 0.5 + 1 + 1 + 1.5.

8. NGUYỄN LÊ ĐĂNG KHOA [NLDK].

- Absence: -2.
- Early attendance: 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 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) + 1 (binom coeff) + 1 (create string II) + 1 (distribute apple) + 1 (Christmas party) + 1.75 (l'Hospital) + 0.25 (weird alg) + 3 (permutation order) + 1.5 (meet middle) + 0.25 (repetition) + 0.25 (increase array) + 0.25 (permutation) + 0.25 (number spiral) + 0.25 (2 sets) + 0.25 (bit string) + 0.25 (trailing zeros) + 0.25 (palindrome reorder) + 0.25 (coin pile) + 0.25 (hangover) + sum (0.25) + 0.25 (humidex) + 0.25 (specialized 4-digit num) + 0.25 (quicksum) + 0.25 (Dirichlet) + 0.5 + 1 (circumference circle) + 1 (filled subgrid count I) + 0.5 + 1 + 0.5 (naughty cow) + 0.5 (chicken fox) + 0.5 (farm guard) + 0.5 (wolf sheep) + 1 (labyrinth) + 1 (ocean) + 0.5 (El fucho) + 0.5 (torch) + 0.5 (negative prefix) + 0.5 (be positive) + 0.5 (unconventional pairs) + 0.5 (odd divisor) + 0.5 (new year number) + 0.5 (card friend) + 0.5 (MEX partition) + 0.5 (distinct element).

9. PHAN GIA LẠC [PGL].

- Early attendance: 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 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) + 0.75 (next prime) + 1 (prime multiple) + 1 (binom coeff) + 1 (create string II) + 1 (distribute apple) + 1 (Christmas party) + 0.25 (bitstring) + 0.25 (gray code) + 2 + 0.5 + 1 + 2 (Riemann sums).

10. PHAN PHƯƠNG PHI [PPP].

- Early attendance: 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 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) + 1 (distribute apple) + 0.75 (l'Hospital) + 1 + 1 (count bit) + 0.5 (2 knights) + 0.5 + 0.5 + 1 (filled subgrid count I) + 0.5 + 0.5 + 0.5.

11. ĐẶNG MINH PHƯƠNG.

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

12. Nguyễn Hoàng Quân.

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

13. Đường Nguyễn Minh Sơn.

   - Absence: -2.
   - Early attendance: $0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5$.
   - Bonus: $1 + 1.5$.

14. Hấu Trung Thành.

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

15. Tạ Minh Thiện.

   - Early attendance: $0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5$.
   - Bonus: $1 + 1 + 1 + 2.5 + 1.5$.

16. Lê Nguyễn Quốc Toàn.

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

17. Nguyễn Anh Tuyển.

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

18. Nguyễn Như Ý.

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

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}.

1.2 Final grades

Tên SV	Điểm cột 15%	Điểm cộng
Trần Thanh Cường	0	điểm trừ -2.5
Huỳnh Lâm Vũ Đình	6.3	
Trương Công Hoan	6.3	
Nguyễn Huy Hoàng	10	16.25
Lữ Minh Hoàng	1.7	
Hà Quang Huy	3.3	
Nguyễn Bảo Khánh	10	0.5
Nguyễn Lê Đăng Khoa	10	35.75
Phan Gia Lạc	10	11
Phan Phương Phi	10	8.75
Đặng Minh Phương	0	
Nguyễn Hoàng Quân	3	
Đường Nguyễn Minh Sơn	3.3	
Hấu Trung Thành	0	điểm trừ -5
Tạ Minh Thiện	8	
Lê Nguyễn Quốc Toàn	8.7	
Nguyễn Anh Tuyển	4	
Nguyễn Như Ý	4.7	

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

1. LÊ MINH TRÂM ANH.

   - Absence: -2.
   - Early attendance: $0.75 + 0.75 + 0.75 + 0.75 + 0.75 + 0.75 + 0.75 + 0.75$.
   - Bonus: $3.5 + 3.5 + 1.5 + 1$.

2. NGUYỄN BẢO ANH.

   - Early attendance: $0.75 + 0.75 + 0.75 + 0.75 + 0.75 + 0.75$.
   - Late: 5 mins.
   - Bonus: 1.5.

3. CAO GIA BẢO.

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

4. VŨ VĂN ĐẠT.

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

5. TRẦN VĂN HẬU.

   - Absence: -2.
   - Early attendance: $0.75 + 0.75 + 0.75 + 0.75 + 0.75 + 0.75 + 0.75 + 0.75 + 0.75$.
   - Bonus: $1 + 2.5 + 1 + 1.5$.

6. NGUYỄN NGỌC BÍCH HIỀN [NNBH].

   - Early attendance: $0.75 + 0.75 + 0.75 + 0.75 + 0.75 + 0.75 + 0.75 + 0.75 + 0.75 + 0.75$.
   - Bonus: $0.25 + 1 + 1 + 2 + 1 + 1.5 + 1.5$ (int poly) $+ 1.5$ (int poly like).

7. NGUYỄN VĂN HIẾU.

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

8. DƯƠNG XUÂN HƯNG [DXH].

   - Early attendance: $0.75 + 0.75 + 0.75 + 0.75 + 0.75 + 0.75 + 0.75 + 0.75 + 0.75$.
   - 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) $+ 2$ (next prime) $+ 0.5$ (weird alg) $+ 1.5$ (int poly) $+ 1$ (miss num) $+ 0.5$ (repetition) $+ 0.5$ (increase array) $+ 0.5$ (hangover) $+ 3$ (IMO2007P3) $+ 0.5$ (ugly num) $+ 1$ (max xor sum) $+ 0.5$ (Pascal triangle).

9. TRẦN LÊ GIA HUY.

   - Early attendance: $0.75 + 0.75 + 0.75 + 0.75 + 0.75 + 0.75 + 0.75$.
   - Late: $20 + 21$ mins.

10. TRẦN QUANG HUY.

    - Absence: -2.
    - Early attendance: $0.75 + 0.75 + 0.75 + 0.75 + 0.75 + 0.75 + 0.75$.
    - Bonus: $1 + 2 + 1.5$.
    - Late: 22 mins.

11. ĐẶNG PHÚC AN KHANG [DPAK].

    - Absence: -2 - 2 - 2.
    - Early attendance: $0.75 + 0.75 + 0.75 + 0.75$.
    - Late: $15 + 52 + 80$ 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) $+ 1$ (binom coeff) $+ 1.5$ (meet middle) $+ 1.5$ (Hamming dist) $+ 0.25$ (palindrome reorder) $+ 0.75$ (2 set) $+ 0.25$ (bit string) $+ 0.25$ (num spiral) $+ 0.25$ (trailing 0) $+ 0.25$ (tower Hanoi) $+ 0.5$ (apple division) $+ 0.25$ (create string) $+ 0.25$ (IMO2007P5) $+ 0.25$ (IMO2008P3) $+ 0.25$ (hangover) $+ 0.25$ (sum) $+ 0.1$ (humidex) $+ 0.25$ (quicksum) $+ 0.25$ (specialized 4-digit num) $+ 0.25$ (contesting decision) $+ 0.25$ (Dirichlet) $+ 0.25$ (circumference circle) $+ 0.25$ (vertical histogram) $+ 1.5$ (IMO2007P1) $+ 0.25$ (gold coin) $+ 0.25$ (bee) $+ 0.25$ (manager) $+ 0.25$ (Pascal lib) $+ 0.25$ (ride school) $+ 0.25$ (self num) $+ 0.25$ (speed limit) $+ 0.25$ (3n + 1 prob) $+ 0.25$ (calendar) $+ 0.5$ (sym order) $+ 0.25$ $+ 0.75$ (knapsack) $+ 0.5$ (tile) $+ 0.25$ (Hanoi tower) $+ 0.25$ (mex grid construction) $+ 0.25$ (knight move grid) $+ 0.5 + 1 + 0.25 + 2$ (Stirling 1) $+ 2$ (falling factorial) $+ 2$ (rising factorial) $+ 0.5$ (Pascal triangle) $+ 0.5$ (naughty cow) $+ 0.5$ (pond) $+ 1$ (ocean) $+ 0.5$ (chicken fox) $+ 0.5$ (farm guard) $+ 1.5$ (mortal kombat tower) $+ 0.5$ (frog) $+ 0.5$ (cube) $+ 0.5$ (El fucho) $+ 1$ (thief) $+ 0.5$ (torch) $+ 1$ (negative prefix) $+ 0.5$ (be positive) $+ 0.5$ (unconventional pair) $+ 1.5$ (trash) $+ 1$ (MEX rose) $+ 0.5$ (odd divisor) $+ 0.5$ (new year number) $+ 1$ (ball in Berland) $+ 1$ (clean phone) $+ 0.5$ (circle apple tree) $+ 0.5$ (bitwise operation) $+ 1$ (even odd game) $+ 0.5$ (MEX partition) $+ 0.5$ (distinct element) $+ 0.5$ (reverse XOR) $+ 0.5$ (sublime sequence) $+ 0.5$ (laser) $+ 0.5$ (pacer) $+ 0.5$ (dandelion) $+ 1$ (split) $+ 1$ (replace occurrence) $+ 1$ (gravity fall) $+ 0.5$ (incremental subarray).

12. LƯƠNG QUỐC KHÁNH.

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

13. NGUYỄN HÀ ĐĂNG KHOA.

   - Early attendance: $0.75 + 0.75 + 0.75 + 0.75 + 0.75 + 0.75 + 0.75 + 0.75 + 0.75$.
   - Bonus: $1 + 0.5 + 2.5$.

14. NGUYỄN HUY ĐĂNG KHOA.

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

15. HUỲNH ĐỖ ĐĂNG KHOA.

   - Late: $23 + 45 + 25 + 20 + 10 + 25 + 22$ mins.
   - Early attendance: $0.75 + 0.75$.
   - Bonus: 1.

16. TRẦN TRUNG KIÊN.

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

17. NGUYỄN HUỲNH CHÍ LÂM.

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

18. LÊ HOÀNG LINH.

   - Absence: -2.
   - Early attendance: $0.75 + 0.75 + 0.75 + 0.75 + 0.75 + 0.75 + 0.75$.
   - Bonus: $1 + 1 + 1.5 + 1 + 2 + 2.5 + 1.5$.
   - Late: 30 mins.

19. LÂM BẢO NGỌC.

   - Absence: -1.
   - Early attendance: $0.75 + 0.75 + 0.75 + 0.75 + 0.75 + 0.75 + 0.75 + 0.75 + 0.75$.
   - Bonus: $0.25 + 1 + 4 + 1 + 1 + 3$.
   - Late: 10 mins.

20. NGUYỄN LƯƠNG NGHĨA [NLN].

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

- Bonus: 0.5 + 1 + 1 + 3 + 1.5 + 1.5 + 1.5 + 1 + 1 + 1.5 (int) + 2.5.

21. TRẦN PHÚC NGUYÊN.

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

22. BÙI VĂN NHỚ.

   - Early attendance: 0.75 + 0.75 + 0.75 + 0.75 + 0.75 + 0.75 + 0.75 + 0.75.
   - Late: 40 + 10 mins.
   - Bonus: 1 + 1 + 1 + 1 + 3 + 0.75 + 2.

23. LÊ THANH TÂN.

   - Absence: -1 - 1 - 2.
   - Early attendance: 0.75 + 0.75 + 0.75 + 0.75 + 0.75.
   - Late: 5 mins.

24. HUỲNH THỊ KIỀU THU.

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

25. HOÀNG NGHĨA TÍN.

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

26. HOÀNG ANH TUẤN.

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

27. NGÔ THANH TÙNG.

   - Absence: -2 - 2 - 2 - 2.
   - Early attendance: 0.75 + 0.75 + 0.75.
   - Late: 29 + 15 mins.

28. NGÔ HOÀNG TÙNG [NHT].

   - Absence: -2.
   - Early attendance: 0.75 + 0.75 + 0.75 + 0.75 + 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) + 1 (binom coeff) + 1 (create string II) + 1 (distribute apple) + 1 (Christmas party) + 3 (permutation order) + 1.5 (Hamming dist) + 0.75 (int poly C++) + 0.25 (palindrome reorder) + 0.25 (2 sets) + 0.25 (create string) + 0.5 (midterm) + 0.15 (humidex) + 0.25 (hangover) + 0.25 (specialized 4 digit num) + 0.25 (quick sum) + 0.25 (contesting decision) + 0.25 (vertical histogram) + 0.25 (ride school) + 0.75 (ugly number) + 0.25 (bee) + 0.25 (gray code) + 1 (filled subgrid count II).

29. TRẦN MỘNG TUYỀN.

   - Absence: -1 - 1.
   - Early attendance: 0.75 + 0.75 + 0.75 + 0.75 + 0.75 + 0.75 + 0.75.
   - Bonus: 1.5 + 2 + 2.5.

30. NGUYỄN QUANG VỸ.

   - Absence: -1 - 2 - 1.
   - Early attendance: 0.75 + 0.75 + 0.75 + 0.75 + 0.75 + 0.75.
   - Bonus: 1.5 + 4 + 1 + 1.5 + 1.5 + 1 + 1.5 + 1.5 + 2.5.

2.1 Final grades

Tên SV	Điểm cột 15%	Điểm cộng
Lê Minh Trâm Anh	9	
Nguyễn Bảo Anh	4	
Cao Gia Bảo	3.2	
Vũ Văn Đạt	3.7	
Trần Văn Hậu	7.2	
Nguyễn Ngọc Bích Hiền	10	2.25
Nguyễn Văn Hiếu	0.8	
Dương Xuân Hưng	10	22.75
Trần Lê Gia Huy	3.3	
Trần Quang Huy	5.2	
Đặng Phúc An Khang	10	48.1
Lương Quốc Khánh	7.5	
Nguyễn Hà Đăng Khoa	7.2	
Nguyễn Huy Đăng Khoa	1	
Huỳnh Đỗ Đăng Khoa	0.8	
Trần Trung Kiên	4.5	
Nguyễn Huỳnh Chí Lâm	7	
Lê Hoàng Linh	9	
Lâm Bảo Ngọc	10	1
Nguyễn Lương Nghĩa	10	13.5
Trần Phúc Nguyên	5	
Bùi Văn Nhớ	10	0.5
Lê Thanh Tân	0	điểm trừ -0.25
Huỳnh Thị Kiều Thu	10	1.5
Hoàng Nghĩa Tín	2.7	
Hoàng Anh Tuấn	0	điểm trừ -0.75
Ngô Thanh Tùng	0	điểm trừ -6
Ngô Hoàng Tùng	10	41.65
Trần Mộng Tuyền	6.2	
Nguyễn Quang Vỹ	10	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 + 0.25 + 0.5 + 0.25 + 0.5 + 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) + 1.5 (Bell matrix multiplication) + 0.5 + 0.5 + 1 (count coprime pair) + 1 (binom coeff) + 1 (create string II) + 1 (distribute apple) + 1 (Christmas party) + 0.75 (spanning tree) + 0.75 (tiling) + 0.25 (weird alg) + 0.25 (repetition) + 0.25 (miss number) + 0.25 (increase array) + 0.25 (permutation) + 1 (line segment intersection) + 1.5 (graph representation converters) + 0.25 (derangement) + 0.25 (coffee) + 2 (score tool) + 1 (count 1) + 0.5 (knapsack) + 1 (int partition) + 0.5 (p 5n + 4) + 0.75 (Newton binomial) + 0.25 (partition) + 0.5 (subset square num) + 2 (Stirling II) + 1 (falling factorial) + 1 (rising factorial) + 0.5 (Pascal triangle) + 0.5 (Tribonacci) + 1 (Ferrers diagram) + 2 (proof leaf of tree).

   - Midterm: 11.25.

2. Hoàng Anh [HA].

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

   - Bonus: 1.5 + 1 + 0.5 + 1.5 + 1 (Stirling 2) + 0.25 + 0.25 + 0.5 (Euler) + 0.25 (monic monomial) + 0.5 + 0.25 + 1 (types of graph) + 0.5 + 1 (recursion sum of powers) + 0.5 + 0.25 + 0.25 + 0.75 (graphic) + 0.5 + 0.25 + 0.25 + 0.75 + 0.5 + 0.75. Done.

- Midterm: 6.5.

3. Võ Huỳnh Thái Bảo.

   - Early attendance: $0.25 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5$.

   - Late: 7 mins.

   - Bonus: $0.5 + 0.5 + 0.75 + 0.25 + 0.25 + 0.25 + 0.5 + 0.25 + 1 + 0.5 + 0.5 + 0.5 + 0.5$ (Stirling 2) $+ 0.5 + 0.5 + 1.5$ (gen func) $+ 0.5$ (Euler candy) $+ 0.5 + 0.5 + 0.5 + 0.25$ (Dirichlet principle) $+ 1$ (derangement) $+ 1 + 1 + 1$ (Pascal triangle) $+ 0.25 + 0.25 + 0.25 + 0.5 + 0.5 + 0.25 + 0.5 + 0.5 + 0.25 + 1$ (Petersen) $+ 0.5 + 0.5 + 0.5$ (forest) $+ 1 + 1 + 1 + 1 + 1 + 1 + 0.5$
     To 6.216 p. 16+++

   - Midterm: 3.75.

4. Trần Mạnh Đức.

   - Absence: -1 - 1.

   - Early attendance: $0.25 + 0.5 + 0.25 + 0.25 + 0.25 + 0.5 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25$.

   - Bonus: $1.5 + 1 + 1.5 + 0.5$ (Stirling 2).

   - Late: $18 + 7 + 30$ mins.

   - Midterm: 5.75.

5. Nguyễn Trung Hậu.

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

   - Early attendance: $0.25 + 0.25 + 0.25 + 0.25 + 0.5 + 0.25 + 0.25 + 0.25 + 0.5$.

   - Bonus: $1 + 0.25 + 0.25 + 0.25 + 0.25 + 0.25 + 0.25$ (plane split) $+ 0.25 + 0.25 + 0.25 + 0.25 + 0.25 + 0.25$ (gen func) $+ 0.25 + 0.25 + 0.25 + 0.5$ (bowtie graph) $+ 0.5$ (circuit) $+ 0.5 + 0.25 + 0.25$ (longest path method) $+ 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5$.
     Tới bài 26 p. 18

   - Late: $24 + 20 + 10 + 70$ mins.

   - Midterm: 0.75.

6. Phạm Phước Minh Hiếu [PPMH].

   - Early attendance: $0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5$.

   - Bonus: $1 + 0.5 + 1$ (Stirling 2) $+ 1$ (Stirling 2 Python) $+ 1.5$ (int partition) $+ 1.5$ (Stirling 1 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)

   - Midterm: 4.

7. Hoàng Quang Huy.

   - Absence: -2 - 1.

   - Early attendance: $0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5$.

   - Bonus: $2 + 1.5$.

   - Midterm: 5.25.

8. Phan Nguyễn Duy Kha.

   - Absence: -1 - 1 - 2 - 2 - 1.

   - Early attendance: $0.25 + 0.5 + 0.25 + 0.25 + 0.25 + 0.25 + 0.25 + 0.5 + 0.25 + 0.5 + 0.5$.

   - Bonus: $1.5 + 1 + 1 + 1 + 1.5 + 1.5 + 1.5$ (\$).

   - Late: 60 mins.

   - Midterm: 7.

9. Đặng Phúc An Khang.

   - Bonus: $0.5 + 1 + 1$.

10. Phạm Minh Khoa.

    - Absence: -2 - 2 - 1 - 1 - 2.

    - Early attendance: $0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.25 + 0.25 + 0.5 + 0.25 + 0.25 + 0.25 + 0.25 + 0.5$.

    - Bonus: 0 (midterm exam: cheat use phone)

    - Late: 10 mins.

    - Report: 0.

11. Trần Thành Lợi.

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

    - Early attendance: $0.25 + 0.25 + 0.25 + 0.25 + 0.5 + 0.25 + 0.25$.

    - Bonus:

    - Late: $23 + 60 + 15$ mins.

    - Midterm: 0.

12. Lê Đức Long.

    - Absence: -2.

    - Early attendance: $0.25 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5$.

    - Bonus: $1 + 0.5 + 1 + 1 + 0.25 + 0.25 + 0.25 + 0.25 + 0.25 + 0.5$ (type of graph) $+ 0.25 + 0.75 + 0.25 + 0.5 + 1$ (Christmas party) $+ 0.5 + 0.25 + 0.25 + 0.5$ (Python Euler candy) $+ 0.75 + 1$ (Euler candy gen func) $+ 0.5$ (Python Pascal identity) $+ 0.5$ (Catalan dp) $+ 0.5$ (bracket sequences I) $+ 0.5 + 0.$ (Stirling 2) $+ 0.5$ (Stirling 1) $+ 0.5$ (Bell) $+ 0.25$ (Bell appro).
      Tới 19. CM Dijkstra p. 19

    - Midterm: 6.

13. Lê Công Hoàng Phúc.

    - Early attendance: $0.25 + 0.5 + 0.25 + 0.25 + 0.25 + 0.5 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5$.

    - Bonus: $1 + 1 + 1$ (induction).

    - Late: $24 + 3 + 12$ mins.

    - Midterm: 4.5.

14. Huỳnh Nhật Quang.

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

    - Early attendance: $0.25 + 0.25 + 0.25 + 0.25 + 0.25 + 0.25$.

    - Late: $10 + 20 + 20 + 20 + 28 + 22 + 20$ mins.

    - Midterm: 2.

    - Bonus: $0.25 + 0.5 + 0.25 + 0.25 + 0.25$.
      Toi report week 2 p. 5.

    - Comment: Không compile được file tex.

15. Cao Sỹ Siêu (CSS).

    - Early attendance: $0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5 + 0.5 + 0.25 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5$.

    - Bonus: $1 + 1 + 1 + 0.5 + 1$ (derangement) $+ 0.75$ (inclusion–exclusion) $+ 2$ (PAC Catalan) $+ 1$ (Catalan proof) $+ 2$ (Pascal triangle) $+ 0.5 + 0.5 + 0.5 + 0.5 + 0.75$ (lack of graph isomorphism) $+ 1 + 1 + 0.25 + 0.5 + 1 + 2$ (Havel–Hakimi) $+ 1.5$ (gen func) $+ 2.5$ (proof Dijkstra) $+ 1 + 1 + 1 + 0.5 + 1 + 0.5 + 1 + 1 + 1$.
      To P. 10.2.12 p. 31

    - Late: 8 mins.

    - Midterm: 5.75.

16. Sơn Tân [ST].

   - Early attendance: $0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25$.
   - Bonus: $1 + 1 + 1.5 + 2$ (Linux).
     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) $+ 1$ (graphic sequence) $+ 1.5$ (Euler d) $+ 2.5$*** (Euler).
   - Midterm: 6.

17. Nguyễn Ngọc Thạch [NNT].

   - Absence: -1 - 1.
   - Early attendance: $0.25 + 0.25 + 0.5 + 0.25 + 0.5 + 0.5 + 0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.25$.
   - 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: $5 + 23 + 34$ mins.
   - Midterm: 8.25.

18. Phan Vĩnh Tiến [PVT].

   - Early attendance: $0.25 + 0.5 + 0.25 + 0.5 + 0.25 + 0.25 + 0.25 + 0.5 + 0.25 + 0.25 + 0.5 + 0.25 + 0.5$.
   - Bonus: $2 + 0.5$ (virus) $+ 1 + 2$ (binomial) $+ 1$ (exp I) $+ 1$ (exp II) $+ 1$ (Stirling 2 DP) $+ 1$ (Bell) $+ 1.5$ (ads) $+ 1$ (banana) $+ 0.5$ (point location test) $+ 2$ (IMO2007P1) $+ 2$ (Newton binomial, multinomial thm) $+ 1.5$ (count bit) $+ 1$ (int partition) $+ 5$ (int trigonometrical funcs).
   - Late: $8 + 25 + 16$ mins $+ 48 + 14 + 10$.
   - Midterm: 11.

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 - 2.
   - Early attendance: $0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5$.
   - Final assignment: -1.

2. Trương Công Hoan.

   - Absence: -2.
   - Early attendance: $0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5$.
   - Final assignment: -1.

3. Lữ Minh Hoàng.

   - Early attendance: $0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5$.
   - Final assignment:

4. Đinh Kim Hưng.

- Absence: -1.
- Early attendance: $0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5$.
- Bonus: $3 + 3$.
- Final assignment: 1.

5. HUỲNH VÕ QUỐC KHÁNH.

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

6. NGUYỄN NHẬT KHÔI.

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

7. VÒNG LỶ NÀM PHÚC VLNP.

- Early attendance: $0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5$.
- Bonus: $1.5 + 2$ (extended scheduling) $+ 3$ (solve triangle ccc) $+ 3$ (solve triangle cgc) $+ 3$ (solve triangle gcg) $+ 2$ (graph color) $+ 3$ (A*) $+ 4$ (TSP).

8. HẦU TRUNG THÀNH.

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

9. NGUYỄN THI.

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

10. ĐẶNG NGUYỄN DUY TRƯỜNG.

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

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

1. CAO NGUYỄN GIA AN.

- Early attendance: $0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5$.
- Bonus: $3.5 + 2 + 2 + 2.5 + 2.5 + 1 + 1.5 + 1 + 1 + 1.5 + 2.5 + 1$ (eval func) $+ 1.5 + 2 + 2 + 2.5 + 1.25 + 1 + 1 + 0.5 + 1$ (Fib) $+ 1.5$ (HN) $+ 2 + 2 + 2 + 2.5$ (partition) $+ 1.5 + 2 + 0.5 + 0.5 + 1 + 1$.
- Midterm: 4.5.

2. HOÀNG TRÂM ANH.

- Early attendance: $0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5$.
- Bonus: $1 + 2 + 2 + 2.5 + 1.5 + 0.5 + 1 + 1.5 + 0.5 + 1 + 1 + 1$.
- Midterm: 8.

3. BÙI NGUYỄN MINH DŨNG.

- Early attendance: $0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5$.
- Bonus: $2.5 + 2 + 2 + 2.5 + 2.5 + 1 + 1.5$.
- Midterm: 10.

4. NGUYỄN NGỌC HÂN.

- Early attendance: $0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5$.
- Bonus: $0.5 + 1 + 1.5 + 0.5 + 1 + 1 + 1.5 + 1 + 1.5 + 2 + 2 + 2.5 + 0.5 + 1 + 1.5 + 1.5$.
- Midterm: 7.

5. NGUYỄN THÀNH THÁI HIỆP.

- Early attendance: 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 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 + 0.5 + 0.5 + 1 (sym num) + 1 (prime fact).
- Midterm: 6.5.

6. Vũ Nguyễn Yến Hoa.

- Absence: -2.
- Early attendance: 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5.
- Bonus: 1 + 2 + 2.5 + 1 + 1.5 + 0.5 + 1 (eval func) + 1.5 + 2 + 1 + 1.5 + 2 + 1 + 0.5 + 1 + 1 + 1 + 2.
- Midterm: 6.

7. Đỗ Huy Hoàng.

- Early attendance: 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5.
- Bonus: 1 (Fib) + 1.5 + 2 + 1.5 + 0.5 + 0.5 + 1 + 1 + 2.
- Midterm: 3.5.

8. Nguyễn Gia Huy.

- Absence: -2 - 2 - 2 - 2 - 2.
- Early attendance: 0.5 + 0.5 + 0.5.
- Early attendance: 0.5 + 1 (eval func) + 1.5 + 2 + 2 + 2.5 + 1 + 0.5.
- Midterm: 5.5.

9. Phạm Lâm Gia Khánh.

- Absence: -2 - 2.
- Early attendance: 0.5 + 0.5.
- Late: 15 mins.
- Bonus: 0.5 + 0.5 + 1 + 1.5 + 2 + 1.5 + 1 + 2.
- Midterm: 5.5.

10. Phạm Xuân Khánh.

- Absence: -2 - 1 - 2 - 2 - 2.
- Early attendance: 0.5 + 0.5
- Late: 15 + 30 mins.
- Bonus: 2 + 1 + 1.5 + 0.5 + 1 + 1.5 + 1 + 2 + 0.5 + 0.5 + 1 + 1 + 1 + 1.
- Midterm: 10.25.

11. Bùi Đức Khoa.

- Absence: -2.
- Early attendance: 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5.
- Bonus: 0.5 + 2 + 1 (eval func) + 1.5 + 0.5 + 1.5 + 2 + 0.5 + 1 + 1.
- Midterm: 3.

12. Trần Vũ Nguyên Khôi.

- Absence: -1 - 2 - 2.
- Early attendance: 0.5 + 0.5 + 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 + 0.5 + 1 (Fib) + 0.5 + 0.5 + 1 + 1 (sort str).
- Midterm: 5.25.

13. Vũ Thị Ngọc Lan.

- Early attendance: 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 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 + 1 + 0.5 + 1 + 2 + 3.

- Midterm: 10.5.

14. Trần Văn Lên.

   - Early attendance: 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 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 + 1 + 0.5 + 1.5 + 2 + 1.5 + 0.5 + 0.5 + 1 + 1 + 1 (prime Fibo).
   - Midterm: 4.

15. Thái Anh Nhật Thiên Long.

   - Absence: -2 - 2 - 2 - 2.
   - Early attendance: 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5.
   - Bonus: 2 + 2 + 2.5 + 1.5 + 1.
   - Midterm: 7.5.

16. Lê Nguyễn Bảo Ngọc. Tristy.

   - Absence: -2 - 1 - 2 - 2 - 2 - 2.
   - Late: 15 + 15 + 10 + 92 mins.
   - Bonus: 1 + 1.5 + 0.5 + 1 + 1.5 + 1 + 1.5 + 2 + 1.5 + 2 (Pascal triangle) + 0.5 + 1 + 1 + 1 (prime Fibo).
   - Midterm: 9.75.

17. Lê Hồng Ngọc.

   - Absence: -2 - 1.
   - Early attendance: 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5.
   - Bonus: 2 + 2.5 + 1 (eval func) + 1.5 + 2 + 2 + 0.5 + 1 (Fib) + 2.5 + 1.5 + 2 + 1 + 0.5 + 0.5 + 1 + 1 (prime Fibo) + 1 (sort str) + 1.
   - Midterm: 8.75.

18. Nguyễn Hữu Nhân.

   - Absence: -2 - 2 - 2.
   - Early attendance: 0.5 + 0.5 + 0.5.
   - Bonus: 0.5 + 1.5 + 2 + 0.5 + 0.5 + 1 + 1 + 1 + 1 + 1 + 2.
   - Late: 15 + 15 mins.
   - Midterm: 3.5.

19. Lâm Thiện Nhân.

   - Absence: -2 - 2.
   - Early attendance: 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5.
   - Bonus: 2.5 + 1 + 1.
   - Midterm: 5.

20. Phạm Minh Nhật.

   - Absence: -2
   - Early attendance: 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5.
   - Bonus: 1.5 + 2 + 2 + 2.5 + 1 + 1.5 + 2 + 0.5 + 1 + 1.5 + 1.
   - Midterm: 6.75.

21. Phạm Quỳnh Như.

   - Early attendance: 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5.
   - Bonus: 1 (eval func) + 2.
   - Midterm: 8.25.

22. Nguyễn Ngọc Quỳnh Như.

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

- Midterm: 8.

23. Đoàn Trương Thiên Phong.

    - Absence: -2 - 2.
    - Early attendance: $0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5$.
    - Midterm: 7.

24. Hồ Tấn Tài.

    - Absence: -2.
    - Early attendance: $0.5 + 0.5 + 0.5 + 0.5$.
    - Bonus: $1.5 + 2 + 2 + 1 + 0.5 + 1 + 1 + 1.5 + 2 + 1.5$.
    - Late: $10 + 20 + 15 + 43$ mins.
    - Midterm: 10.

25. Hồ Quốc Thành.

    - Absence: -2.
    - Early attendance: $0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5$.
    - Bonus: $1 + 1.5 + 1 + 1 + 1.5 + 1 + 0.5 + 1 + 2$.
    - Midterm: 4.5.

26. Nguyễn Thị Minh Thư.

    - Absence: -2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2.
    - Midterm: 0.

27. Đỗ Thị Hải Tình.

    - Early attendance: $0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5$.
    - Bonus: $2 + 2 + 2.5 + 1 + 1.5 + 0.5 + 1 + 1.5 + 1 + 1.5 + 2 + 0.5$.
    - Midterm: 9.75.

28. Võ Đoàn Thái Toàn.

    - Absence: -2.
    - Early attendance: $0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5$.
    - Bonus: $0.5 + 2 + 2 + 1 + 0.5 + 1 + 1 + 1.5 + 2 + 2.5 + 0.5 + 1$.
    - Midterm: 9.

29. Trần Quốc Trung.

    - Early attendance: $0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5 + 0.5$
    - Bonus: $0.5 + 2 + 2 + 2.5 + 1 + 0.5 + 1.5 + 1 + 1.5 + 2 + 0.5 + 1$.
    - Midterm: 8.25.

6 UMT Fall Semester 2025/1629: Discrete Mathematics LAB 1

1. Trần Gia Bảo [TGB].

    - Attendance: $0.75 + 0.75 + 0.75$.
    - Bonus: $1.5 + 1 + 1.5 + 1$.

2. Nguyễn Khoa Đăng.

    - Attendance: $0.75 + 0.75 - 3$.
    - Bonus: 1.5 (BT1).

3. Võ Hải Đăng.

    - Attendance: $0.75 - 3 + 0.75$.
    - Bonus: $0.5 + 0.5$.

4. LÊ HẢI ĐÔNG.

   - Attendance: 0.75 + 0.75 + 0.75.
   - Bonus: 1.5 + 1 + 2 + 2 + 2 + 1 (BTL1) + 1.5 (BTLT2) + 1 + 1 + 1 + 1.

5. LÊ NGỌC KHANH DUY.

   - Attendance: 0.75 + 0.75 + 0.75.
   - Bonus:

6. TRẦN ANH HẢO [TAH].

   - Attendance: 0.75 + 0.75 + 0.75.
   - Bonus: 1.5 + 1.5 + 2 (BT5) + 1.5 (BT6) + 0.5 (BT20 Rosen) + 1 (BT28 Rosen).

7. LÊ MINH HIỀN.

   - Attendance: 0.75 + 0.75 + 0.75.
   - Bonus: 1.5.

8. PHẠM PHƯỚC MINH HIẾU.

   - Attendance: 0.75 + 0.75 + 0.75.
   - Bonus: 1.5 + 1.5 + 1 (BT35 Rosen).

9. LÊ NGUYỄN MINH HIẾU [LNMH].

   - Attendance: 0.75 + 0.75.
   - Bonus: 1.5 + 1 + 1.5 + 1.5.

10. TRẦN PHƯỚC ĐINH HỢI [TPDH].

    - Attendance: 0.75 + 0.75 + 0.75.
    - Bonus: 1 + 1 + 1 + 0.5 + 2.

11. NGUYỄN DUY KHA [NDK].

    - Attendance: 0.75 + 0.75 + 0.75.
    - Bonus: 1.5 + 1 + 0.5 + 1 (BTLT1).

12. ĐỖ VĂN KHÁNH.

    - Absence: -3 - 3 (ca 2?).
    - Attendance:
    - Bonus:

13. NGUYỄN ĐĂNG KHOA [NDK].

    - Attendance: 0.75 - 3.
    - Bonus: 1.5.

14. TRƯƠNG NGUYỄN ĐĂNG KHOA.

    - Absence: -3 - 3.
    - Attendance: 0.75.
    - Bonus:

15. PHAN ANH KHƯƠNG [PAK].

    - Attendance: 0.75 + 0.75 + 0.75.
    - Bonus: 1.5 + 1.5 + 0.5 + 0.5.

16. NGUYỄN THÀNH LÂM [NTL].

    - Attendance: 0.75 + 0.75 + 0.75.
    - Bonus: 1 + 1 + 0.5.

17. NGUYỄN HUỲNH LONG [NHhL].

- Attendance: 0.75 + 0.75 + 0.75.
- Bonus: 1.5 + 1.5 + 0.5 + 1 + 1.5 + 1.5.

18. Ngô Đức Mạnh [NDM].

- Attendance: 0.75 + 0.75.
- Bonus: 1.5 + 0.5 + 0.5 + 1.5 + 1.5.

19. Bùi Trọng Nghĩa.

- Attendance: 0.75 + 0.75 + 0.75.
- Bonus: 1.5 + 1.5 + 1.5 + 1 + 1.5 + 2.

20. Lê Đăng Nghĩa [LDK].

- Attendance: 0.75 + 0.75 + 0.75.
- Bonus: 1.5 + 1.5 + 1.5 + 1 + 0.5.

21. Nguyễn Hoàng Phúc.

- Absence: -3.
- Attendance: 0.75.
- Bonus:

22. Thiều Nguyễn Ân Phúc.

- Attendance: 0.75 + 0.75.
- Bonus:

23. Nguyễn Minh Phúc [NMP].

- Absence: -3.
- Attendance: 0.75.
- Bonus: 1.5 + 1.5.

24. Đặng Bảo Phúc [DBP].

- Attendance: 0.75 + 0.75 + 0.75.
- Bonus: +1.5 + 2.

25. Lê Tấn Minh Quân [LTMQ].

- Attendance: 0.75 + 0.75 + 0.75.
- Bonus: 1.5 + 1.5 + 1 + 1.5.

26. Bùi Minh Quang [BMQ].

- Attendance: 0.75 + 0.75 + 0.75.
- Bonus:

27. Nguyễn Hoàng Sơn [NHS].

- Absence: -3.
- Attendance: 0.75 + 0.75.
- Bonus: 0.5 + 0.5 + 0.5 + 1 (BTLT1).

28. Nguyễn Hữu Tài.

- Absence: -3.
- Attendance: 0.5.
- Bonus:

29. Lê Đỗ Minh Thuận [LDMT].

- Absence: -3 -3 (ca 2?).
- Attendance:
- Bonus:

30. Nguyễn Minh Trung [NMT].

   - Attendance: 0.75. + 0.75 + 0.75
   - Bonus: 1.5 + 1 + 1.5 + 1 + 2 + 1.5.

31. Huỳnh Tiến Trung [HTT].

   - Attendance: 0.75 + 0.75 - 3.
   - Bonus: AI.

32. Trịnh Kim Tuân [TKT].

   - Absence: -3 - 3.
   - Attendance: 0.75.
   - Bonus: 1.5 + 1.5.

33. Lê Phạm Hồng Vy [LPHV].

   - Attendance: 0.75 + 0.75 - 1.
   - Bonus: 1 + 1 + 0.5.

7   UMT Fall Semester 2025/1629: Discrete Mathematics LAB 2

1. Nguyễn Trần Đình An [NTDA].

   - Attendance: 0.5 + 0.5 + 0.5.
   - Bonus:

2. Nguyễn Gia Bảo [NGB].

   - Attendance: 0.5 + 0.5.
   - Bonus: 1.5 + 1.5 + 1.5 + 0.5.

3. Nguyễn Tiến Bảo [NTB].

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

4. Lâm Thiện Chí [LTC].

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

5. Nguyễn Hoàng Đang [NHD].

   - Attendance: 0.5 + 0.5 + 0.5.
   - Bonus: 1.5 + 1.5 + 1 + 2 (BT6).

6. Lê Đăng Thành Đạt [LDTD].

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

7. Huỳnh Thái Dương [HTD].

   - Attendance: 0.5 + 0.5 + 0.5.
   - Bonus: 1.5 + 1 + 1 + 1 (BT5).

8. Quách Trần Minh Hiền.

   - Attendance: 0.5 + 0.5 - 3.
   - Bonus:

9. Lê Chí Hùng.

   - Absence: -3 - 1.
   - Attendance: 0.5.

- Bonus: 1.5 + 1.5.

10. Trần Vũ Quang Huy [TVQH].

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

   Hàn Thị

11. Lương Huỳnh [LH].

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

12. Nguyễn Vũ Hoàng Lâm [NVHL].

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

13. Nguyễn Cảnh Lân [NCL].

   - Attendance: 0.5 + 0.5 + 0.5.
   - Bonus: 0.5 + 1 + 0.5 + 1 + 1.

14. Đỗ Quang Lộc [DQL].

   - Attendance: 0.5 + 0.5 + 0.5.
   - Bonus: 1.5 + 1.5 + 0.5. + 1.5 (BT7).

15. Dương Hữu Lợi [DHL].

   - Attendance: 0.5 + 0.5 + 0.5.
   - Bonus: 0.5.

16. Nguyễn Huy Long [NHL].

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

17. Trương Phúc Minh [TPM].

   - Attendance: 0.5 + 0.5 + 0.5.
   - Bonus: 1 + 1 + 0.5 + 1 + 0.5 (new year number) + 0.5 (fair division) + 0.5 (card friend) + 0.5 (MEX partition) + 2 + 0.5 (sublime sequence) 1 + 1 + 0.5 + 1.5 + 1.5 + 1.5.

18. Trần Minh Nhân [TMN].

   - Attendance: 0.5 + 0.5 + 0.5.
   - Bonus: 1.5 (BT6).

19. Trần Lâm Hồng Nhân [TLHN].

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

20. Huỳnh Thanh Phú [HTP].

   - Attendance: 0.5 + 0.5 + 0.5.
   - Bonus: 1.5 + 1.5 + 1 (BT4).

21. Mã Gia Phúc.

   - Attendance: 0.5 + 0.5 + 0.5.
   - Bonus: 1.

22. Dương Nguyễn Quang Sơn.

   - Attendance: 0.5 + 0.5 + 0.5.
   - Bonus:

23. Nguyễn Phạm Duy Thành [NPDT].

- Attendance: 0.5 + 0.5 + 0.5.
- Bonus: 0.5 (BT5) + 0.5 + 0.5 + 1 + 1.5 + 1.

24. Đỗ Phúc Thịnh [DPT].

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

25. Hoàng Lê Minh Thư [HLMT].

- Attendance: 0.5 + 0.5 + 0.5.
- Bonus: 1.5 + 1.5 + 1.5 + 1 + 1. BT5-7: AI.

26. Nguyễn Tấn Minh Toàn [NTMT].

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

27. Hàn Thị Thùy Trang [HTTT].

- Attendance: 0.5 + 0.5 + 0.5.
- Bonus: 1.5 + 1.5 + 1.5 + 1 + 1 (BTLT).

28. Bùi Nguyễn Nhựt Vinh [BNNV].

- Attendance: 0.5 + 0.5.
- Bonus: 0.5 (BT5) + 0.5 (BT6) + 1.5 + 1 (BT7).

29. Phạm Lê Khánh Vy [PLKV].

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

8 UMT Fall Semester 2025/1575: Linear Algebra LAB 1

1. Nguyễn Thành Công [NTC].

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

2. Nguyễn Ngọc Trúc Đào [NNTD].

- Attendance: -3 + 0.5 - 1.
- Bonus: 0.5.

3. Trần Thành Đạt [TTD].

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

4. Trần Nhật Duy [TND].

- Attendance: 0.5 + 0.5 + 0.5.
- Bonus: 1 + 1 + 1 + 1 + 1 + 1.5 + 1.P

5. Nguyễn Phúc Duy [NPD].

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

6. Nguyễn Nhật Duy [NND].

- Attendance: 0.5 + 0.5 + 0.5.
- Bonus: 1 + 0 + 1 + 0 + 1 + 0 + 1.

7. Ngô Quang Hào [NQH].

- Attendance: 0.5 + 0.5 + 0.5.
- Bonus: 1 + 1.

8. Vũ Vinh Hiển [VVH].

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

9. Trần Văn Hoàng [TVH].

   - Attendance: 0.5 + 0.5 + 0.5.
   - Bonus: 1.5 + 1.5 + 1 + 1 + 1 + 1.5 + 1 - 0.5 (resubmitM).

10. Nguyễn Vũ Bảo Hoàng [NVBH].

    - Attendance: 0.5 + 0.5 + 0.5.
    - Bonus: 0.5 + 0.5 + 1 + 1 + 1.

11. Ưng Nhựt Khang [UNK].

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

12. Phạm Tuấn Khanh [PTK].

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

13. Nguyễn Chí Khanh.

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

14. Bùi Đăng Khoa [BDK].

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

15. Nguyễn Vạn Phúc Khoa.

    - Attendance: 0.5 - 3 + 0.5.
    - Bonus: 1 + 1 - 0.5 + 1.5 + 1.

16. Đoàn Nguyễn Đăng Khoa [DNDK].

    - Attendance: 0.5 + 0.5 + 0.5.
    - Bonus: 1.5.

17. Ngô Đăng Khôi [NDK].

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

18. Trần Nhật Khôi [TNK].

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

19. Cao Tài Lộc.

    - Attendance: -3 - 3 + 0.5.
    - Bonus:

20. Nguyễn Quốc Minh [NQM].

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

21. Phan Hữu Bình Nguyên [PHBN].

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

22. Nguyễn Lê Quỳnh Như [NLQN].

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

23. Võ Tấn Phát [VTP].

- Attendance: 0.5 + 0.5 + 0.5.
- Bonus: 0.5 + 0.5 + 0.5 + 1 + 0.5 (BT1) + 0.5 (BT2).

24. Võ Như Phúc [VNP].

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

25. Nguyễn Thị Nguyên Thảo.

- Attendance: -3 - 3 + 0.5.
- Bonus:

26. Nguyễn Thanh Thiện [NTT].

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

27. Nguyễn Phú Thịnh [NPT].

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

28. Ngô Đình Thông [NDTh].

- Attendance: 0.5 + 0.5 + 0.5.
- Bonus: 1.5 + 1 (BT6) + 1 (BT7).

29. Phạm Quang Tuyến [PQT].

- Attendance: 0.5 + 0.5 + 0.5.
- Bonus: 1.5 + 1.5.

9 UMT Fall Semester 2025/1575: Linear Algebra LAB 2

1. Hồ Ngọc Vân Anh.

- Attendance: -3 + 0.5.
- Bonus:

2. Nguyễn Tiến Bình.

- Attendance: 0.5 + 0.5.
- Bonus: 1.5 + 1.5.

3. Phạm Thế Công.

- Attendance: -3 - 3.
- Bonus:

4. Bùi Nguyễn Minh Hoàng.

- Attendance: -3 - 3.
- Bonus:

5. Trần Quang Khải.

- Attendance: -3 + 0.5.

- Bonus:

6. Trần Hùng Khang.

   - Attendance: 0.5 + 0.5.
   - Bonus: 1 + 0.5.

7. Trần Thành Lợi.

   - Attendance: -3 - 3.
   - Bonus:

8. Trần Huỳnh Long [THL].

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

9. Lương Tiểu Long [LTL].

   - Attendance: 0.5 + 0.5.
   - Bonus: 1.5 + 1.5.

10. Hồ Thị Thuý Ngân [HTTN].

    - Attendance: -3 + 0.5.
    - Bonus:

11. Huỳnh Hoàn Phúc [HHP].

    - Attendance: 0.5 + 0.5.
    - Bonus: 0.5 (BT1) + 0.5 (BT2) + 0.5 (BT3) + 1 (BT4) + 0.5 (BT5) + 1.5 + 1 (BT6) + 1.5 + 1 (BT7) + 1 + 0.5 (BT8) + 2+ 1.5 (BT9) +1 + 0.5 (BT10).

12. Trần Quang Sơn [TQS].

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

13. Võ Nguyễn Tấn Tài [VNTT].

    - Attendance: 0.5 + 0.5.
    - Bonus: 1.5 + 1.5.

14. Nguyễn Đức Thành Tài.

    - Attendance: 0.5 + 0.5.
    - Bonus: 1.

15. Phạm Đăng Hoàng Thiên [PDHT].

    - Attendance: 0.5 + 0.5.
    - Bonus: 1 + 1 + 1 + 1.5 + 1 + 1.5 + 1 (BT7) + 1 + 1.

16. Bùi Thị Anh Thư.

    - Attendance: 0.5 + 0.5.
    - Bonus:

17. Nguyễn Đức Trung [NDT].

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

18. Trần Mộng Tuyền [TMT].

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

19. Trần Nguyễn Phương Vy [TNPV].

    - Attendance: 0.5 + 0.5.
    - Bonus: 1 + 1.

10 Olympic Tin OLP ICPC

1. Võ Ngọc Trâm Anh [VNTA]. 1 (thief) + 2 (path queries).

2. Đoàn Nguyễn Đăng Khoa [DNDK]. K3.

   - Bonus: 0.5 (weird alg) + 0.5 (miss number) + 0.5 (repetition) + 0.5 (increase array) + 0.5 (permutation) + 0.5 (num spiral) + 0.5 (bit string) + 0.5 (trailing zero) + 0.5 (coin pile) + 0.5 (IMO2007P5) + 0.5 (hangover) + 0.5 (sum) + 0.5 (ugly number) + 0.5 (speed limit) + 0.5 (self num) + 0.5 (gold coin) + 0.25 (3n + 1 prob) + 0.5 (Hanoi tower) + 0.5 (new year number) + 0.5 (card friend) + 0.5 (fair division).

3. Đỗ Anh Kiệt [DAK].

   - Bonus: 0.5 (virus) + 1 (count rooms) + 1 (dice) + 1.5 (shortest route I) + 1 (distribute apple) + 3 (permutation order) + 0.25 (trailing zero) + 0.5 (Raab game) + 2.5 (IMO2007P3) + 0.25 (hangover) + 1.5 (count bit) + 0.75 (grid color I) + 1 (negative prefix) + 0.5 (torch) + 1 (long jump).

4. Trần Quang Sơn [TQS]. K3.

   - Bonus: 0.5 + 1 (prime) + 1 (houseboat) + 0.5 (weird alg) + 0.5 (miss number) + 0.5 (repetition) + 0.5 (increase array) + 0.5 (num spiral) + 0.5 (bit string) + 0.5 (trailing 0) + 0.5 (coin pile) + 0.5 (IMO2007P5) + 0.5 (speed limit) + 0.5 (ride to school) + 0.5 (self num) + 0.5 (bee) + 0.5 (gold coin) + 0.25 (3n + 1 prob) + 0.5 (Pascal lib) + 0.5 (tribonacci) + 0.25 (divisor game) + 0.5 (frog) + 0.5 (El fucho) + 0.5 (fair division) + 0.5 (distinct element) + 0.5 (sublime sequence) + 0.5 (laser) + 0.5 (increase smash) + 0.5 (increase subarray).

5. Phạm Đăng Hoàng Thiên [PDHT]. K3.

   - Bonus: 0.5 + 1 (houseboat) + 2 (remove digit) + 1.5 (next prime) + 2 (Christmas party) + 0.5 (frog) + 0.5 (torch) + 0.5 (be positive) + 0.5 (unconventional pairs) + 0.5 (odd divisor) + 0.5 (card friend) + 0.5 (new year number) + 0.5 (fair division) + 0.5 (MEX partition) + 0.5 (distinct element) + 0.5 (sublime sequence) + 0.5 (laser) + 0.5 (pacer) + 0.5 (increase smash) + 0.5 (incremental subarray).

11 Miscellaneous