

【Competition Q&A】

Q1. Is the next answer accepted when it is submitted while the restoration process is in progress?

A1. Yes, answers are accepted during the restoration process. When a qualified answer has been updated, the restoration process begins for the new qualified answer.

Q2. When can we find out the identification numbers of the assignments?

A2. We will release the identification numbers at the briefing session for the participants prior to the competition.

Q3. According to the rules of the Competition, the answer received during the format verification, shall be processed as an invalid answer. Is there any way we can check whether the answer is under verification or not?

A3. Once the verification is completed, the result is sent out as either “ACCEPTED” (if the format is matched) or “ERROR” (if the format is not matched). In other words, the verification is underway if no result is received.

Q4. Are the figures to identify the positions of pieces such as 00 ~ FF case sensitive?

A4. Yes.

Q5. The time value is calculated by the duration of the “time” spent. At what time is it counted as “0”?

A5. The timing when the assignment is released is counted as “0”.

Q6. On the section “Format of Answer” on Page 11, it is stated that “When the final answer contains more selections than allowed, only the allowed number of selections and its series of swapping shall be assessed.” What exactly do “the allowed number of selections and its series of swapping” mean?

A6. They are the required numbers specified in the assignment.

Q7. What are the minimum pixel dimensions for height and width of the picture?

A7. It is 32 pixels respectively.

Q8. What are the minimum numbers of both columns and rows?

A8. They are divided into a minimum of 2 columns or rows respectively.

Q9. What is the minimum number of selections?

A9. Twice.

Q10. Who is in charge of setting the rules of the Competition Section?

A10. The rules of the Competition Section are set by the Programming Contest Committee.

Q11. What is the minimum number of selections of a piece?

A11. Twice

Q12. Are the participants notified where the divided pieces are located in the original picture, before the competition starts by the organizer?

A12. No, they aren't.

Q13. There is a statement that some pieces may be identical to one another. Is there any possibility that all pieces are identical to one another?

A13. As far as the rule goes, yes, there is a possibility. But we do not see such a case occurring.

Q14. Is there any possibility that the brightness of assignment pictures change for some reason? If so, what are the minimum and maximum values of the brightness of a picture?

A14. No, the brightness won't change.

Q15. Can assignments be in black and white?

A15. The format of a picture is PPM in full-color. It is possible that assignments are black-and-white in full-color PPM.

Q16. Can you elaborate on the following rule? “Once all restoration steps are complete, the reproduced picture is assessed whether it is an absolute restoration or not. If the answer is an absolute restoration, the team earns the rank on the spot.”

A16. The total value of an answer submitted after the restoration process of the current answer is larger than that of the current answer. Thus if the answer is an absolute restoration, the team earns the rank on the spot.

Q17. If a team submits an answer which is an absolute restoration, and other teams submit an answer which is an absolute restoration with a smaller total value afterward, does the first team keep the rank?

A17. The ranking can change depending on the length of the answer submission time of the following teams.

Q18. Is it acceptable that a human solves the assignment and submits an answer instead of using programming?

A18. Yes, it is acceptable. But the answer must be submitted via LAN.

Q19. According to the rules of the Competition, the original pieces are rearranged in “random” positions. Does it guarantee that assignments are also to be restored to their original positions absolutely?

A19. Yes, absolute restoration is feasible.

Q20. What is the limit for the number of swapping?

A20. There is no limit for the number of swapping. Yet, if the size of the answer is over 1MB, the answer may be rejected as an error.

Q21. In case of a format error, what kind of reply is received? (Are we receiving a reply with a certain text such as “ACCEPTED XX”?)

A21. When the format is rejected, you will receive “ERROR” as the reply.

Q22. According to the rules the Competition, the verification indicates that the number of pieces which are not matched with the original picture as follows:

“ACCEPTED XX”. If XX is 1, how does it appear in the reply? Is it “01” or “ 1”?

A22. The number is indicated as “ACCEPTED 1”.

Q23. When is the time limit announced? Could you tell me more specifically (E.g., five minutes before the competition starts, after entering the stage, etc.)?

A23. We will announce the time limit at the briefing session for participants.

Q24. Are the original pictures going to be released to the public?

A24. Yes, they will be available for the public after the competition is over.

Q25. Is there any case that identical pieces exist in the picture? In that case, how is the answer judged?

A25. Yes, there can be a picture which contains identical pieces. The answers are judged based on the verification result received via the server; the judgment is made by the number of pieces that did not match with the original picture.

Q26. There may be pieces which may look correct even in the wrong positions. Is it possible that the assignments contain such pieces? If so, how is the answer judged?

A26. Yes, it is possible that some assignments may contain such pieces. The answers are judged based on the verification result received via the server; the judgment is made by the number of pieces that did not match with the original picture.

Q27. According to the rules of the Competition, the assignment is defined as a picture such as a natural image or illustration. Is there any chance that an assignment can be a picture which restoration will be extremely difficult? For example, a picture of a sky which color is the same for the entire picture, or an illustration which is an endless repetition of the same print?

A27. No, we do not use such pictures for the assignments.

Q28. When we swap pieces, can we select multiple pieces at once? (For instance, swap four pieces at once as a block)

A28. No, it is not allowed to swap multiple pieces as a block.

Q29. According to the rules of the Competition, the time value is obtained by multiplying the total seconds passed, until the answer is received by 100. There is also an example of how to calculate the value. Can you explain how exactly data in 1/100 second is processed?

A29. The figure less than 1 second is rounded off. The time value is the rounded number multiplied by 100.

Q30. If the submitted answer is “format error”, what is a reply that the server returns to us?

A30. The server will reply “ERROR.”

Q31. What is the minimum number to divide a picture? Is it possible that a picture is divided such as $1 \times N$ or $N \times 1$?

A31. The minimum number to divide a picture is 2 for both rows and columns.

Q32. Is a black-and-white image or sepia-tone image considered as full-color?

A32. Yes.